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*Why ask for the moon
When we have the stars?*



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Negative by Arthur W. Wilde,

AN AUTUMN MORNING.

Germantown, Philadelphia, Pa.

THE
PHOTO-BEACON

A JOURNAL DEVOTED TO

PHOTOGRAPHY

IN ALL ITS PHASES.

VOLUME XIII.

1901.

"LET THERE BE LIGHT."

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No. 1.

THE PROGRESS OF A PICTORIAL PHOTOGRAPHER.

We find the reign of law everywhere, and being convinced that in the evolution of pictorial photography there is an all-governing law in action, I have interested myself for some months in trying to recognize its nature, to learn its general trend and how it is influencing the average individual at the present moment of time. In trying to get data from which to reason in a general way, I have tried to analyze the experience of individuals, more particularly that of my own, with which I am naturally most familiar, and I have in the course of my investigations learned that my own experiences are very largely those of others, another proof, by the way, that I am an average individual, a fact that gives me great satisfaction.

Well, here is the record of my photographic career. I started photography because I wanted to have records of certain things, people and events that interested me. For a few months I was about the craziest amateur photographer in the world, and I thought I would be perfectly contented if I had to expose plates and develop them forever. My sole motive in making an exposure was that I was interested in a particular subject, and this I find is just what influences the vast majority of human beings in pictures and picture-making. The subjects must possess human interest.

Once I was able to expose correctly, develop and print, I thought I had

learned the whole art of photography, and the pleasure of pursuit being wanting, my interest began to wane and my outfit was laid on the shelf. My prints remained in evidence, however, and as time passed I found they grew more and more commonplace, until I became thoroughly dissatisfied with them, and began to wonder why they were so uninteresting. Luckily for me I stumbled on the cause, and I entered on the second stage of my photographic career by making an addition to my photographic family.

The name of my new baby was "Composition," and a most interesting child it proved to me, far more so than the first, and for more than a year if I looked at a subject I considered only the lines that gave it its form and structure. The subject as a subject interested me but little, the composition was practically everything. But in due course of time this phase of photography became ordinary and once more my interest began to wane, but the addition of a new member to my photographic family sent me once again on a long chase.

This child is known to the world as "Light and Shade," and a most fascinating individual she is. I call her she, of malice aforethought, for she is a most capricious personage and plays the most unexpected tricks on those who are trying to woo her favor. At first she is simply incomprehensible and for long she treats most audaciously those who handle her the most bashfully, but once her moods are understood and she is guided with a firm hand she becomes

a most devoted servant. She will create a picture out of the most uninteresting material, and as a consequence the worshiper at her shrine is apt to consider her as the only god and to neglect paying devotion to his former idols. While under the spell of this charming child I must confess my work possessed more feeling than it had ever done, but it contained much less of human interest, and this is true of most pictures I see.

But I have got a new baby, not exactly the child of my old age, but the one that is due to arrive when a photographer or painter reaches the age of forty, and I have to acknowledge, not with regret, that I have passed that milestone. I grow old with pleasure, because I like to learn, and I know many things now I would not know were I younger. The name of the latest addition to my family is "Tone Values," and though she is almost twin sister in appearance to "Light and Shade," she is of daintier mood, more elusive, more bewitching as a consequence. I try to treat her seriously as becomes a man of my years, one who is getting physically lazy and more inclined to be contemplative rather than active, but after all she plays me many a saucy trick and sends the blood dancing through my veins as it was wont to do when physical action was a pleasure and brainwork a decided bore.

In my boyhood days an old man in the little village once took me by the shoulders and held me in front of a tree on the edge of a wood; then he calmly asked me what I saw. "Nothing," I replied. But he insisted I must see something, and at last I confessed I saw the bark of the tree in front of me. "But can not you see the rest of the wood?" he asked. "Of course not," I answered. He released me, and then holding up a finger he said: "Laddie, never forget this, that if you get your eyes up against a tree you can never see the rest of the trees in the wood." Then he left me, and for many a long year I wondered what he meant. I know now, and so I try to get back and so see as many of the trees as possible, that they may all appear in due proportion.

It is very hard to put the latest baby with the other members of the family, and to stand a distance off and survey them all judiciously, for it is very pleasant to get the youngest on one's knee and fondle it to the comparative neglect of all the others. But time works wonders and in due course even the latest baby finds its proper position, and we begin to wonder what part it will play in the world.

And so of late I have been considering what is the exact function of "Tone Values" in my photographic family. I think I have solved the problem. She is not the whole thing, but is much of it. Hers is the sweet influence that binds all the rest together into one harmonious whole, but a picture is not a picture unless it contain human interest — be composed according to sound principles and be properly lighted.

It seems to me that here is the line of demarcation between the extremists, who insist their ideas are the only true art and those who can not see things that way. All have new babies, each so to speak has got his eyes in front of a tree and is unable to see the rest of the trees in the wood. The extremists on the one hand will develop a new affection for their neglected progeny, the others will get new additions to their families and harmony will once more reign.

It is not unusual to confide that certain events are likely to happen, and so I wish to hint in as delicate a manner as possible that I can see the probability of a new addition to my photographic family, whose name will be "Thought." As I have had no experience, photographically, with this baby, I can not say much about it, but this I do know, that in the plain everyday world there are people who express their thoughts in big words and high-sounding phrases, and some who can convey their ideas in plain Anglo-Saxon. Long ago I decided the latter were thinking clearly and logically, the former were chasing fag ends and had caught hold of no living principles. I see the same thing in photography. The clear thinker expresses himself so plainly that the good

points of his picture can be seen at a glance, the hazy dreamer gives us something vague and indefinite, and with a condescending air prattles about mystery and imagination. I have asked admirers of such pictures to tell me the solution of the riddle, to specify what they imagined, but I never yet found one who could get beyond the utterance of clap-trap phrases.

"What fools we mortals be." We imagine vain things and deem them to be facts.

F. DUNDAS TODD.

PORTRAIT POSING AND LIGHTING.*

BY J. H. VANDERPOEL,

Head of the Department of Figure Drawing and Painting in the Art Institute of Chicago.

CHAPTER I.

INTRODUCTORY.

Among mechanics where good judgment, some taste and considerable skill are necessary, one often discovers in the shop or home examples of their best skill made in spare hours, purely for the love of it, and of which they are justly proud. So, too, in remote places far from the stimulus of a large city, it is a pleasure to find in the gallery of the local photographer an example of a high order of photographic art. The modest operator listens with not a little pride to one's favorable comments, answering that it is the result of some experimenting done for his own enjoyment. He says he has seen a few good things in his visits to the city, has read not a little, and is trying hard to better his work and to improve himself. He does not always realize that he has done something artistic, although he is conscious that it is much better than his everyday work, without knowing altogether why. But he tells you the public does not like it. His patrons want things retouched to death and from their point of view "up to date." So he confines the expression of his best artistic sense to experiments for his own gratification. Sooner or later, however, this artistic sense will assert itself, whether he wills it or not, in all his work, both to his own gain and the appreciation of

his best patrons. True, the bed of the most successful photographer, artistically and commercially considered, is not all a bed of roses, for though his wealthy patrons be many their good taste is not always in proportion to the size of their purse. The privilege of criticism is arrogated by persons of wealth and education, and in photography they too often find an opportunity to express an adverse opinion when such is not justifiable.

It is beyond all doubt that pictorial photography has advanced materially within the last few years, but this growth might be much greater if a larger proportion of the profession would hold the art side in higher esteem, leaving the commercial to take care of itself, as no doubt it would if their work were of a higher order. For in any case the public follows where the photographer leads, for he largely sets the standard of excellence for the community as a whole. This is true of fads in the trade sense and is equally true in artistic matters. A photographer, in the highest sense of the term, is an artist; he can not help but be such. True, all engaged in the profession are not equally gifted, but each may as well with a slight effort on his part make his lifework one of enjoyment as well as a means of livelihood. In fact, many a worker in this busy world would jump at the chance, could he find in his daily work the means of enjoyment which lies in the grasp of every photographer. Much of his work, day in and day out, may be commonplace enough, and the thoughtful photographer no doubt gives it little more consideration than it needs; but when a sitter enters the studio who suggests possibilities, he should be artist enough to grasp them; it is his chance and with it should come the highest pleasure.

The photographer, like the portrait painter, should have insight into the character and individuality of his sitters; his opportunity for the study of human nature exceeds the artist's a thousand to one. The poise of the head, the choice of view, noting from which point the head composes best, the nature

* Copyright, 1900, by F. Dundas Todd.

of the lighting to bring out the best realization of the character and the expression of his sitter, all these things must be well considered. In all this he must be quick as well as intelligent, for he has not the hours of the painter at his disposal in which to mature his judgment. He must have a scientific knowledge of the nature of light, its

feeling of detachment from the background will be lost. His color sense, too, must be kept alive, and whenever possible he should plan with the sitter as to the color scheme, for the harmony of the picture as a whole is readily destroyed by a value being out of tone. In posing he should consider simplicity of action as of the greatest importance —



Negative by J. C. Strauss,

St. Louis.

FIG. 1.

An excellent example of simplicity in accessories, nothing being present excepting what is actually essential to the idea of the picture.

effect and quality of absorption and reflection on color; the artistic treatment of masses of light and shade, when and how to concentrate or diffuse it to procure unbroken masses. The feeling of mystery in the shadows must be preserved, for in proportion as they are broken by too much reflection so will the luminosity of the light be destroyed; neither must the shadows be dead, or all

grace in youth, in older people repose and dignity, and unconsciousness in the attitude of the child. A knowledge of the laws of composition, too, is most necessary, as it relates to the balancing of forms so that the lines may lead the eye agreeably over the surface of the picture; also that the light and dark spots may be disposed of in due proportion. Finally comes appreciation of

beauty of tone — the most subtle and most difficult of all requirements in pictorial art.

The rashness with which material for backgrounds, accessories and draperies, such as opera cloaks, capes, shawls, trains of dresses, etc., is thrown

purpose, always in keeping with the character, action and motive of the picture. One is usually astonished at the meaningless appointments of the average photographic studio — the papier-mâché rocks, imitation steps and balustrades, fireplace, garden gate, with



FIG. 2.

An example of overcrowding. Note how artificial everything looks, and how the eye wanders aimlessly from face to arm, arm to chair, chair to rug, rug to curtain, curtain to face, and from face to the blotch at top corner of background, all the lines followed by the eye being at abrupt angles to each other and without purpose.

about in the average photograph is astonishing. Too often that which should lend character to the composition as a whole only destroys its very object by the want of discriminations as to its fitness and position. In fact, accessories should be sparingly used in any case, and nothing should be used without a

its fake vine trellis overhead, etc., to say nothing about the gloomy backgrounds as depressing as a graveyard on a rainy day. Why should not the photographer, as does the artist, collect such picturesque material for accessories as lie within his reach? He must be a poor artist indeed to be without some quaint

objects about him. Elegantly carved antique furniture may be beyond his means; a few replicas of genuine old-fashioned or colonial chairs or tables would suffice and be in character. The country photographer even has the opportunity frequently to pick up originals at the household sales in his farming community. Old colonial chairs, tables, settles, sideboards, old-fashioned desks and bookcases, spinets and hall clocks, old-fashioned china, garments and draperies in which a favorite sitter could

tion; the lines of the pose in keeping with the character and intended action forming the basis for the placing of such accessories as will lend interest without detraction, binding all the incidents into a well-balanced whole. In other words the art of composing a picture lies in so disposing of the component parts, after studious elimination, that their lines will so interlace with the lines of the sitter or group as to lead the eye without jar or jolt over its surface to and from the point of interest. In the



Negative by F. C. Baker,

Cleveland, Ohio.

SECOND PRIZE.

revel to the photographer's advantage; could these gradually replace the funereal surroundings, the studio will become infinitely more inviting to the sitter, as well as to the photographer himself, removing the air of fictitiousness that environs it. How is it possible to give an appearance of truthful reality to a photographic composition when all is unreal save the sitter, who, though present in the flesh, feels unreal in spirit, unconsciously affecting both pose and expression. The sitter is naturally the pivot of an arrangement for a composi-

art of the sculptor the third dimension, depth, is equally considered with the first and second — length and breadth; from every point of view his work must balance, though the story is best told from one view. The photographer, like the artist, needs only to arrange his composition from one point of view, but in so doing he is too often negligent of the third dimension, and the result is flatness and rotation. The eye, in traveling over a picture, should find a due amount of depth as a relief from length and breadth.

PICTORIAL COMPETITION NO. 31.

This proved to be an exceedingly interesting competition, and from the best print to the worst the work was a great advance upon that of previous years. We would suggest that our readers look up last year's landscape competition and see for themselves how much progress has been made, and we think they will be pleasantly surprised.

PRIZES.

First.—Arthur W. Wilde, Germantown, Pennsylvania.

Second.—F. C. Baker, Cleveland, Ohio.

Third.—George Beebe, Jr., Chicago.

PARTICULARS OF WINNING PICTURES.

First Prize.—Taken October, 4 P.M., with single achromatic lens. Carbutt Ortho 23 plate, bright light, stop *f*-22, exposure 1½ seconds, printed on W. & C. Platinotype paper.

Second Prize.—Made early in forenoon, June, 1899. Faint sunlight, on Seed 26 X plate; stop *f*-32, exposure 1 second. Printed on Solio, toned with gold and platinum.

Third Prize.—Taken 11 A.M., in September, light hazy, plate Seed 26 X, stop *f*-32, time 2 seconds. Printed on rough Velox. The clouds were printed in from another negative.

The judges considered the prize picture as a beautiful specimen of landscape photography, and especially commended it for the way in which the photographer interweaved the composition lines, light and shade, and tone values. The original is an 8 by 10, and we think we had better warn our readers that it is not intended to be viewed a few inches from the eyes, but at a distance of a few feet. We fear that in the reproduction the exquisite tone values have much chance of being lost.

LITERARY COMPETITION.

From the articles submitted for competition, closing November 15, we have selected the following:

First Prize.—Miss Nellie Parker.

Accepted (not arranged in order of merit).—Arthur Light, E. B. Collins,

Victor Powers, H. D. Pierce, C. T. Bush, H. L. Hurxthal, Leonard D. White, M.D., W. A. Shepherd.

VOIGTLANDER AND I.*

BEING THE REMINISCENCES OF JAMES F. RYDER

CHAPTER I.**THE PROFESSOR.**

Along in the forties many daguerreotype men styled themselves "Professor," and their titles were seldom questioned. It was but a step from the anvil or the sawmill to the camera. The new business of likeness-taking was admitted to be a genteel calling, enveloped in a haze of mystery and a smattering of science. The darkroom where the plates were prepared was dignified by some of the more pretentious as the laboratory. A "No Admittance" door, always carefully closed by "the professor" on entering or emerging, naturally impressed the stranger as something out of the usual, and when he came out carrying a little holder to his sitter and from it drawing a thin slide, revealing from under it the likeness just taken, it was no unreasonable stretch of credulity to recognize in the man something of a scientist and a professor.

In the fall of 1847 I met the professor who was to lead me into the mysteries of daguerreotypy. I had been three years the boy behind the press, pushing the inking roller over the pages of "forms" in a book printing-office, with a vague idea of following the Ben Franklin route, when I met Professor Brightly, a newcomer to our village, a daguerreotype man, and had been encouraged by him to visit him at his rooms, which I did, and I naturally became interested in the new and mysterious work.

Professor Brightly was a tall man of rather striking appearance. His silk hat had been much brushed and was shiny. He wore glasses, his hair was heavy, stiff and especially in front, stood straight up. At the sides it was trained behind his ears, at the back it covered his coat collar. His eyes were

*Copyright, 1900, by James F. Ryder.

gray and keen, which evidently pleased him. He had a big forehead, bigger up and down than across. He wore a large gray shawl, heavily folded, such as was worn by men fifty years ago as a shoulder covering and as a substitute for an overcoat. His trousers bagged at the knees and were too short by a couple of inches. He always wore rubbers.

He had taught a cross-roads school in the country, had a smattering knowledge of and had lectured upon phrenology and biology. The new art of daguerreotypy attracted his attention and had been gathered in as another force with which to do battle in the struggle for fame and dollars. His habit of brushing with his hand the already stiff front hair in an upward direction rather emphasized its standing and his dignity. His manner was genial, meant to impress the person in his presence that although a professor he did not choose to seclude himself in his superior knowledge to the exclusion of his surroundings. He was a sun that could afford to shine upon other and lesser planets without dimming its own luster.

In a friendly way he had felt my bumps, found ideality prominent, color good, form excellent, and assured me I was a promising subject and would make a mark as a daguerreotypist. He knew I had a little money which he wished to lure from my pockets into those trousers of his with the bagged knees. He flattered me and I succumbed; that's how it happened that I took to the camera. Whether it may have been a disappointment to my father that his firstborn son had no higher aspirations than making likenesses with a little box machine I know not. He was a man of few words, and he helped me to pay for my outfit and wished me success. I was a proud young man to be possessor of a camera and my *Voigtlander*. It was even better than the professor's, a great prize indeed for those times, but a very primitive affair as considered with the outfits of the present day.

The camera was perched upon a tripod of turned maple legs, which

screwed into sockets of iron, with a collar or tubing through which passed, up or down, the upright post for raising or lowering the instrument, and which fastened at any point by a thumbscrew. Such was the mechanical device for holding. On top of the post was a wee platform with hinges at front and a wooden screw at the back for raising or lowering it to give pitch to the camera itself.

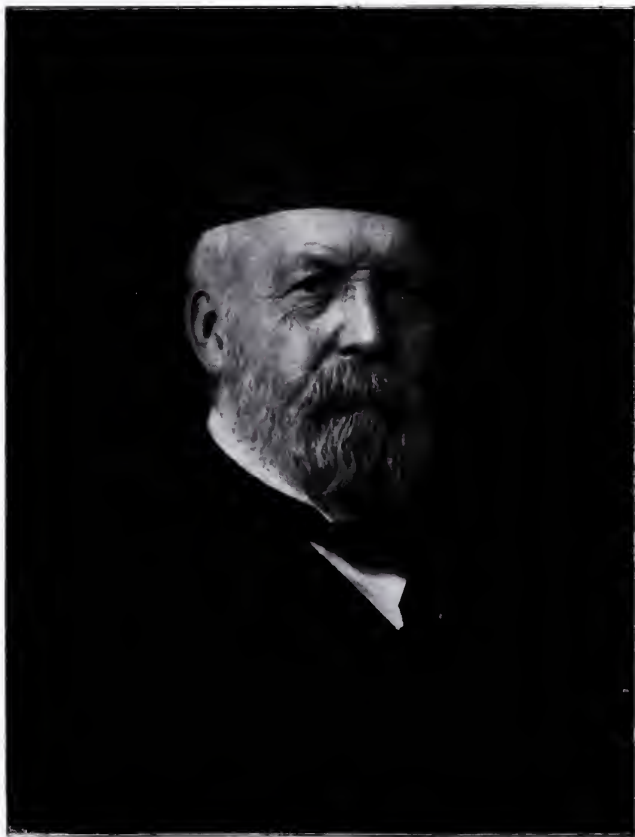
I can picture it in my mind's-eye now as plainly as though I had seen it last week. I can see its rosewood veneer, the edges at front and back chamfered to an angle of forty-five degrees; its sliding inside box, with the focusing glass which was drawn up and out of the top through open doors and the plateholder was slid down into its place. These doors were hinged to open one toward the front and the other toward the back, each having a little knob of turned bone by which to lift it, and there were two little inset knobs of the same material turned into the



AN OLD-TIMER.

top of the box upon which the knobs of the doors should strike, and the concussion of those bone knobs more than fifty years ago is remembered today as plainly as though I had been hearing them every day from then until now; while the smell of iodine from the coated plates in that dear old box lingers with me like a dream. The box

the assumption that to start at "the foot of the ladder" was the correct way to commence any profession. While the boy spirit secretly kicked at the drudgery, the discretion of the coming man was exercised to keep silence. I learned later that a young man willing to do anything required of him pertaining to the work he was employed in



JAMES F. RYDER.

was the body, the lens was the soul, with an "all-seeing eye," and the gift of carrying the image to the plate.

I entertained great reverence for my lens, for we would go out into the world together some day; we would see a bit of it at least, and possibly learn the color of its coin. I was required by the professor to do the general chore work about the place, under

found the best chance to progress. To be trusted, to be found worthy, to be depended upon, is a strong pull for any young man entering upon a career. To be useful to his employer is an assurance of advancement.

My teacher now showed me step by step the routine of making a daguerreotype, and I availed myself as best I could of the knowledge he imparted.

The plates used were of copper body and silver surface, upon which the image or likeness was received. The surface of the plate was carefully scoured with fine rotten-stone sifted through muslin of close texture and wet with alcohol. A pad of Canton flannel with long and close nap was used as a polisher. It was next buffed with buckskin and rouge until the surface was polished as finely as a mirror. It was now ready for the chemical coating that rendered it sensitive to the action of light.

The coating boxes contained glass jars carefully ground at the top, and fitted to slabs of glass also ground, which were made to slide over the top of the jars. When closed, the ground surfaces of the jar top and the covering slab fitted as tightly as stoppered bottles. One of these jars had flakes of resublimed iodine sprinkled over the bottom, from which fumes steadily rose. The other contained a mixture of bromine and chlorine, called "quick stuff," which also constantly gave off fumes.

When sufficiently polished for the coating, the plate was adjusted to a small carrying-frame or kit, in the sliding cover, and was then passed over the fumes of the iodine to take its first coating. When it assumed a golden yellow color it was exposed to the fumes of the "quick," or accelerator until it attained a rose color, then back again a moment over the iodine to secure a harmonious blending of bromo-iodine and then it was ready for exposure on the sitter through the lens of the camera.

When the sitter was comfortably and gracefully posed, the light and shade properly distributed, the focal adjustment of the lens made to show clearly the features, the exposure was made. Up to this point no image was visible upon the plate, but exposure to the fumes of heated quicksilver in a bath for the purpose developed the image, and a most interesting sight it was to watch the image coming out of a blank plate and gradually revealing the form and features as they come into being.

In the earlier days when only iodine was used as a sensitizer a long time was required to impress the plate. The poor martyr who sat for an hour in direct sunlight was paying dearly for his likeness. When bromine was discovered to be an accelerator to speed in the process, the time of sitting was reduced from one hour to one minute, a great stride in advancement.

PHOTOGRAPHIC PRINTING PROCESSES.*

BY LOUIS H. HOYT.

CHAPTER I.

Little or nothing is claimed in the way of originality in the following series of articles. Nothing startling will appear. The aim is to present to the readers in a concise manner the methods employed by practical photographic printers in making prints on the various grades of prepared papers now on the market. No formula for preparing sensitized papers will be given. Good formulæ are the manufacturer's stock in trade and are closely guarded. If one is inclined to experiment in that direction, there are many formulæ published which may be taken as a base. Some are fairly good; many are indifferent and most of them are useless.

It is taken for granted that the worker has had enough experience to produce a fairly good negative, although it is possible at times to make a very good print from one of inferior quality. Methods for doing so differ with the kind of paper being used and the matter will be discussed while the individual papers are being considered.

There are many things to be considered which apply to the handling of all papers and we will deal with these first.

The first article needed is a printing-frame, and it is important that it should be of the right kind, as it may cause trouble. A first-class frame should be made of hardwood, with the corners dovetailed together. The thin strip of wood on the face, which projects into the opening to hold the negative, should

*Copyright, 1900, by F. Dundas Todd.

be glued to the frame, or fastened in such a manner that it can not become loosened. Negatives are often broken by this strip becoming separated from the body of the frame. The inner edge of this

strip should be beveled outward, so that there will be no corner to throw a shadow on the edge of the negative.

The hinged back should be made with the grain of the wood running both



Negative by George Beebe Jr.,

THIRD PRIZE.

Chicago.

ways, either of two thin pieces glued together, or of one piece with cleats tongued and grooved across the end of the grain. This is to prevent warping. For small sizes the back, which is hinged about one-third of the distance from one end, is the most convenient. Large frames are more easily handled if hinged in the middle. The back should fit snugly into the frame so that the possibility of its shifting on the negative is lessened. The springs should be pivoted exactly in the center of the piece to which they are attached, so that the pressure is equal over the entire surface. These springs must be strong enough to press the back firmly against the negative and to hold it in position while one side is opened to examine the print. Printing-frames, when not in use, should be kept in a dry place to prevent warping.

Felt pads should be provided for each frame. These pads may also be made of flannel or any soft cloth. If the flannel is thin, several thicknesses must be used. Be sure that these pads are perfectly dry while in use.

Another very important tool for printing is a soft camel's-hair brush, to be used for dusting.

For all processes where a contact print is made on a paper support, the manner of putting the negative and paper into the printing-frame is the same and will be explained under the general heading. Remove the back and grasp the frame in one hand, allowing the fingers to project into and through the opening. Take the negative, holding it by the edges, in the other hand and place one edge in the opposite side of the frame, with the film side up. Lower the other edge until it rests on the fingers of the hand holding the frame. Now grasp the frame with the other hand and by lowering the fingers upon which the negative rests, it is put into place noiselessly and with no danger of breaking. Then lay it on the table.

Take a sheet of paper in one hand, holding it by the edges, and dust the surface carefully, to remove any dust or paper lint. Dust the face of the nega-

tive, using the tip of the brush only, to avoid any possibility of scratching. Do not blow on the paper or negative. Small drops of saliva might moisten the film and cause the paper to stick, with the result of making a defect on the negative which is difficult to remove.

Place the film side of the paper against the film side of the negative and place a pad on top of the paper. Now put the back in place and turn the springs into position, with the ends under the catches. The use of pads insures perfect contact and reduces the chance of breakage should either the frame or negative be warped. Negatives often crack while printing in the hot sun, but I do not know of a single case of such breakage when thick pads were used.

Before setting the frame in the light to print, clean the back or glass side of the negative. It is often necessary to use a damp cloth to remove finger stains or other matter which can not be dusted off.

During the course of printing, especially if it is being done in the open air, see that no dust settles on the negative. If you notice any, brush it away. It might leave partly printed spots on the paper.

Never touch the film side of either negative or paper with the fingers. If the hands are sweaty, no matter how little, it will invariably show on the finished print. If you are in the habit of being careless in this respect, just stop and think what perspiration is composed of. Aside from water, it consists mainly of oily matter, salt, lime, ammonia and iron, besides a large quantity of carbonic acid gas. It sticks like glue and will tarnish pure gold. Bear this in mind when printing and you will have one less trouble to account for.

To examine the progress of printing, press down on both ends of the spring and turn it so that one section of the back may be opened and the paper turned back for examination. Do not shove one end of spring around and let it fly open with a snap. You would probably move the paper on the negative and might break the plate by so doing

These suggestions apply to plain printing only. Methods for vignetting, printing cloud effects, borders, panoramic printing, etc., will be given later on.

The kind of trays to use and how to care for them is a matter to which a great many workers do not pay nearly enough attention. It is of the utmost importance, and the use of trays unsuited to the purpose, or not kept in proper condition, is the cause of un-

cleaned. Fiber trays answer very well if a separate tray is provided for each bath used. I would not advise the use of so-called hard rubber trays at all. In the first place most of those sold and guaranteed to be of this material are not made of it. They are expensive, easily broken and are apt to be affected by chemicals; especially developing agents. Metal trays will not do, no matter how prepared.

Large trays of any of the materials



Negative by Chas. A. Parfrey,

Richland Center, Wis.

A WISCONSIN PRODUCT.

limited failures, both by professional and amateur. The proper tray to use is one that is not affected by the chemicals in the various solutions and can be easily cleaned. The material of which it is made must not be porous and it must not have any cracks in which any sediment can lodge.

Glass trays are undoubtedly the best, although glazed crockery or earthenware are equally as good. These are unaffected by chemicals and the surface being perfectly smooth is easily

just mentioned are too expensive and are not readily obtained, so it is generally necessary to provide substitutes. Usually these are made of wood and either lined or coated with some substance which is chemical proof. All stock dealers sell them, but they are easily made and I will give a few points on their construction which some readers may find of use.

Large trays should be made of as light material as is consistent with sufficient strength. Seven-eighths inch

lumber for the sides and one-half inch boards for the bottom is generally used. The sides should not be made flaring. They should stand straight up at right angles with the bottom, so that if the tray is rocked the water or solution will not spill out. Trays should always be at least twice the size of the sheets of paper to be handled, so that two piles of prints can be made. The prints may then be moved from one pile to another without much chance of tearing and can be kept well separated.

A thoroughly practical and cheap tray is made by lining a wooden box with oil-cloth. It makes little difference how the box is constructed. Decide on the size and depth wanted and be careful to make it deep enough to prevent spilling when rocked — say about 3 inches for a tray 16 by 25 inches. Nail the sides to the ends and square the frame. Then nail on the bottom and smooth up the ends of the wood. Line it with common thin oil-cloth, such as is used to cover kitchen tables. The color makes no difference, but if white is used any dirt or sediment is readily detected. Fold the corners in any manner that will not crack the hard surface. Fold the cloth over the top of the sides and tack fast to the outside. A good plan is to spread a little glue in patches over the inside of the bottom before putting the cloth in place, so that the tray may be turned bottom side up to drain, without the lining sagging out. Such a tray is perfectly safe to use and may be easily relined.

Another good plan is to make a wooden box and paint it with asphaltum. This makes it necessary to have the joints of the woodwork as close as possible. Put on several coats of asphaltum, allowing each coat to dry thoroughly before applying another.

Coating trays with melted paraffin is a common practice, but is not good except for trays used for fixing or last washing. If used for first washing or toning the print is apt to be rubbed against the paraffin, which will leave a greasy spot that effectually prevents chemical action.

The trouble and slight expense of pro-

viding suitable trays (and plenty of them) is so completely overbalanced by the saving in time and paper and quality of work, that it should not be considered for a moment.

A PERFECT METHOD

OF MOUNTING PRINTS ON REMBRANDTS, TO PREVENT COCKLING.

Willis & Clements have issued the following instructions:

First: The print must be dry.

Second: A ready-made paste, such as Higgins' or any similar kind, must be used.

Third: An artist's bristle brush, $\frac{1}{4}$ inch wide, with which to apply the paste.

Fourth: The print must be expertly placed on the mount, where it is to go, as, by moving about much, the mount will be soiled by the paste, and

Fifth: To insure uniform pressure, the mounted prints should go between two pieces of glass, the lower one of good size and the top one smaller and heavier — a piece of plate-glass $\frac{1}{2}$ inch thick is heavy enough. In place of plate-glass one of ordinary thickness may be used and *weighted*, and if several prints are to be mounted at one time, as many pieces of glass may be used, piled up one on top of the other, only the top one must always be sufficiently heavy to insure the requisite pressure.

DIRECTIONS.

Lay the print to be mounted on a piece of paper (we use newspaper cut to about 6 by 8 for cabinets or smaller sizes, and a *fresh piece for every print*) and quickly spread the paste along the four edges of the print, a narrow strip, about the width of the brush, taking care not to use too much paste, and apply it fairly evenly. Place the print on the mount and then at once under pressure.

This is the quickest, cleanest and surest method of which we have any knowledge.

Keep the glasses clean, and when through mounting, put the brush in a small jar or glass containing water.



Negative by A. W. Wilde,

Germantown, Philadelphia, Pa.

A SPRING EVENING.

Be sure to clean off the old paste left on the brush from previous use.

N. B.—We find Higgins' paste does the work beautifully, but should it become very cold and hard, it will be too thick and may rub up into lumps. It should then be gently warmed in a pan of hot water, and the paste rubbed up to a workable consistency.

BEGINNERS' TROUBLES.

NO. I.—DEVELOPING ROLL FILM.

"I don't want a connected series of instructions in the rudiments of photography," wrote the editor. "I want something helpful for those who are already taking pictures and find that they

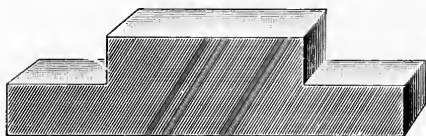


Fig. 1

have troubles of their own. Just look at troubles with the eyes of the beginner and tell him what to do." This I promised to do and for that purpose he has assigned me a certain amount of space in each issue throughout the year.

Beginners who have troubles are invited to write to me direct at the address given at the end of this article. I can not promise to answer all the letters, but I will try through these columns to suggest a remedy for every trouble that is fully explained.

In these days a large majority of amateurs begin with a daylight loading camera that has no ground glass and very often they do not even have a tripod. There is no use in my saying, don't buy such an outfit, for many have already bought them and many more will, in spite of the caution of older heads.

About the first trouble a beginner meets with in such an outfit is in cutting and developing the film. Roll film is cranky even after you have learned its peculiarities. Very often the film will slip on the black backing paper and

several pictures will be spoiled by cutting them in the wrong place. And then after the films are in the developer

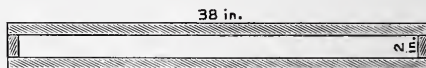


Fig. 2.

they often curl up so that they must be held down to keep them immersed in the solution. To most beginners, and to many older hands in this fascinating art, the temptation to frequently pick up the films to watch the progress of development is too strong to be resisted. Celluloid films will not stand much handling, for the heat of the fingers will soften the gelatin coating and cause it to frill or even run and come off in blotches.

Another trouble is frequently the lack of suitable developing trays. Very often platters or soup plates are pressed into service, and, if they are large enough or the films are small enough, they serve the purpose admirably.

These troubles may all be avoided by the following method of handling films:

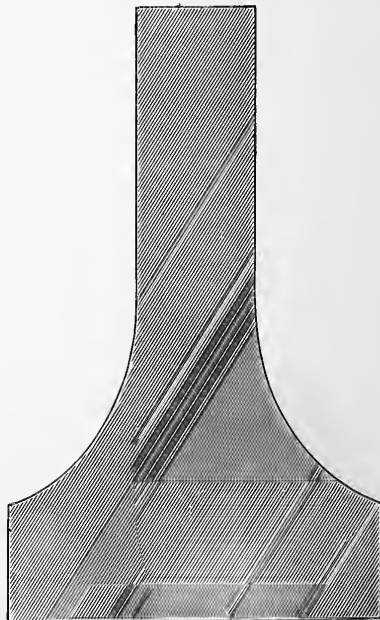


Fig. 3.

Take two strips of soft wood 3 feet 8 inches long, 1 inch wide and not more than $\frac{1}{2}$ inch thick, and two 4 inches long, $1\frac{1}{2}$ inches wide and 1 inch thick. Plane them off smooth if you have a plane; if not, scrape them smooth with a pocketknife or piece of glass. From each end of the small pieces cut away one inch half through the board so that the ends of the long pieces will match into the cut-out place. Fig. 1 shows the stick after being cut. Fasten the ends of the long strips in position with several small screws or shingle nails at each end. This will make the long strips two inches apart and the frame will look like Fig. 2, except that the proportionate length has been greatly reduced to save space. Brush both sides of this frame with melted paraffin and "burn" it in with a smoothing iron just hot enough to melt the wax. The dimensions here given are for a frame to develop a roll of twelve $3\frac{1}{2}$ by $3\frac{1}{2}$ films. If your camera is smaller you can make the frame to fit the film. If it is larger this method of development will hardly be practical unless you cut the film in two.

From another $\frac{1}{2}$ -inch board 3 inches wide cut two pieces the shape of Fig. 3, and around the wide end wrap a 3-inch strip of old white muslin. A worn out bed sheet or "any old thing" will do if it is only soft and free from color that will run. One edge of the cloth should project about two inches from the end of the stick and it should be wrapped around ten or twelve times, so as to form a thick swab. Then fasten it in position with a rubber band or string. Write "Developer" on one and "Hypo" on the other, so as not to get them mixed.

When you are ready to develop pour your developer into a deep earthenware dish and the fixing bath into another. Fasten one end of the film to the frame with three or four thumb tacks pressed through the film near the edge and quite deep into the wood. Unroll the film and fasten the other end to the other end of the frame in like manner. Place one end of the frame in the developer and hold the other end almost upright



Neg. by W. Lester MacFadden, Philadelphia, Pa.

SOMEBODY'S PET.

with the left hand, while with the right you wet the swab in the developer and draw it quickly and *lightly* up and down the entire length of the film. Don't stint the developer, but let the swab take up all it will carry. After the film has been thoroughly wet the end that is held in the hand may be lowered so that the developer will not run down so rapidly, but it must always be held high enough to keep the developer from dripping off at the sides instead of running back into the dish as it should. The ends may be reversed occasionally, and as two inches of the film can be seen along its entire length the progress of development may be watched without touching the film. When the development is completed the films may be fixed in a similar manner, but be careful to not use the developing swab in the hypo.

If the fixing bath is double the usual strength it will save time and I advise you by all means to mix a fresh bath every time you fix. Hypo is too cheap to economize with and fresh hypo hardens the film so that there is less danger from accidental scratches.

The film may be washed without removing it from the frame by simply floating it, film down, in a mill pond.

horse trough, bath tub or anywhere that water enough can be had to float it. Failing that, it may be washed under a hydrant from which the water is allowed to flow very gently.

When thoroughly washed the film should be swabbed for a few minutes with the glycerin bath and hung up or stood on end to dry. After the film dries it may be removed and cut. Theoretically many objections may be made to this method of handling film, but actual practice will demonstrate its practicability. It is true that each film will receive an equal development, but if any are overdeveloped they may be reduced by a very simple ferricyanide bath. There is not much hope of forcing up an undertimed film by development so prolonged that there is danger of fogging the good ones.

Don't be afraid that getting hypo on your frame will spoil it for the next developing. If it has been well coated a few moments' washing will remove every trace of hypo.

By this method one need not touch the film until it is dry, and among other advantages is that it will permit the use of pyro without the usual accompaniment of stained fingers.

J. EDGAR ROSS,
Healdsburg, California.

THE USE OF POTASSIUM PERMANGANATE IN PHOTOGRAPHY.

At the Italian Photographic Congress at Florence in May, 1899, I was able to announce two photographic applications of a solution of potassium permanganate acidified with sulphuric acid, the one the reduction of negatives, and the other a means of making positives direct. Since that time I have continued to experiment with this reagent. It appears useful for several photographic purposes, and the result of these experiments will be found in this paper.

I should like to say beforehand that for the reduction of gelatino-bromide negatives permanganate has received general approval. Many amateur photographers, as well as many profes-

sionals, in Italy, have informed me that they regularly employ it, and are very well pleased with it. It softens negatives that are too hard in a perfect manner without attacking the gelatin, while its cost is practically nothing. I know also that it has been adopted for reducing prints on bromide paper, and a well-known amateur writes me that since its introduction he has succeeded in saving every bromide print, however much overexposed, which, before this reducer was known, would have been so much waste.

It may be well to quote the formula for this reducer once more. It is as follows:

Potassium permanganate	½ gram
Commercial sulphuric acid	1 cc
Water	1,000 cc.

When the negative is sufficiently reduced it is taken out of this, and if it shows any slight yellow tinge due to the deposit of manganese binoxide, it is immersed in a one per cent solution of oxalic acid. This completely removes the stain.

An application which will appeal to photoengravers is its employment on collodion negatives taken through a ruled screen.

I should like to call attention to one fact which seems to me strange. It is known that the solution of ammonium persulphate discovered by Messrs. Lumière and Seyewetz acts as a very energetic reducer on gelatino-bromide negatives. I would point out that this same reagent has no action on collodion negatives, when the solution of persulphate is acidified with sulphuric acid. This different behavior of the two images, in collodion and gelatino-bromide respectively, may have an important bearing when one considers the nature of the image in the two cases, and the method in which ammonium persulphate acts.

On the other hand, permanganate differs from persulphate, since in a solution acidified with sulphuric acid it exercises on collodion negatives a still more energetic action than on gelatino-bromide negatives. It must, therefore, be used in a more diluted solution, in

order to insure regular action, when it is to be employed to reduce collodion plates.

In my own practice I keep a concentrated stock solution made up as follows:

Potassium permanganate	2 grams
Commercial sulphuric acid.....	20 cc.
Water	1,000 cc.

This solution can be kept for a long time in darkness. For use I take one volume of this to nine volumes of water. When a fixed and washed collodion negative is immersed in this solution, it will be seen to be reduced, but in the opposite way to that in which the action takes place with gelatinobromide negatives. In other words, the half-tones are the first parts to be attacked. One can not think, therefore, of using such a plan in order to render too vigorous negatives less harsh. On the other hand, the plan answers very well for clearing fogged negatives.

This is precisely what is wanted in a reducer to be used in the case of negatives taken through a screen for process work. I have adopted this plan with a great many of my own negatives made for half-tone process with collodion, and I have found that the solution of permanganate acts in a better manner than that of potassium ferricyanide and sodium hyposulphite usually used.

It clears the screen negatives very quickly, and leaves the dots very sharp and well defined, as is necessary when good copper or zinc plates are to be etched from them. After the permanganate solution has been used, it should be thrown away, as it must not be used a second time. This matters little, as its cost is almost nothing. With collodion negatives one never gets the brown stains of manganese binoxide, so that the treatment with oxalic acid is not necessary. This is due to the fact that the collodion, unlike the gelatin, does not exercise any considerable reducing action on the potassium permanganate.

I think that it may be to this difference of action of the medium in which the silver is held, and to the different disposition of the silver forming the

image in the two films respectively, that we have to look for the cause of the different action of the permanganate in the two cases. In a gelatinobromide negative the silver is distributed throughout the film, whereas in a collodion negative it lies mainly, if not entirely, on the surface.

Acidified permanganate solution can also be employed as a reducer upon negatives, whether on gelatin or collodion, which have been intensified with mercuric chloride. According to the nature of the solution employed in the intensification process to blacken the bleached negative, the extent of reducing action of the permanganate depends.

The method of obtaining positives direct by means of the permanganate solution and sulphuric acid was dealt with in my previous paper. Experiments have been continued with a view to making the process more perfect and more certain. I can now obtain positives direct, or reproduce negatives direct from negatives, very rapidly and without any failures. I can recommend it to any carbon worker or collotyper, who may want to make reversed negatives, as a rapid and easy method of doing so. Negatives can be copied in this way which, except as regards their reversal, can not be distinguished from the originals.

The method I usually adopt now is as follows: After giving under the negative an ample exposure to the plate, which should be as evenly coated as possible, I develop it in a bath of glycin, which I have found is the most suitable developer for carrying the image to the depth which is necessary in this case. The developer is of the following composition:

Sodium sulphite (crystallized)....	30 grams
Potassium carbonate	50 "
Glycin.....	10 "
Potassium bromide.....	1 gram
Water.....	1,000 cc.

The plate is left in this solution until the image has developed to such an extent that those parts which correspond with the most transparent parts of the negative have developed right through to the back. This is seen by

examining the negative from the glass side. In order to effect this, the plate must be left in the solution for at least half an hour; if it gets a little foggy, it does not matter at all. The negative is then rinsed in water, and, instead of fixing it, it is immersed in the acidified solution of permanganate.

For this purpose the following bath acts very quickly, and, during the short time that it is necessary for the plate to be in it, does not attack the gelatin:

Potassium permanganate	2 grams
Commercial sulphuric acid.....	20 cc.
Water	1,000 cc.

The silver forming the image will be found to dissolve very quickly, and when the whole of the black image has disappeared, the plate may be taken out. If it is examined by transmitted light, it will be found to bear a negative image formed by the non-reduced silver bromide. This operation is done in the light.

The plate, however, will be found to possess a strongly marked brown color, due to the manganese binoxide from the permanganate; this should be removed by immersing it in a one per cent solution of oxalic acid. The negative image will then be seen much more clearly.

After washing the plate to get rid of the oxalic acid, it has to be developed a second time in order to blacken the silver bromide, which now forms the negative image. This second development is not so easy as it might seem, since the silver bromide, after the treatment it has gone through, does not readily lend itself to reduction.

The developer which has answered best in my hands for this second development is a solution of metol containing sulphite and a caustic alkali:

Metol.....	10 grams
Sodium sulphite (crystallized)...	40 "
Caustic soda.....	5 "
Water	1,000 cc.

If the dish holding the plate is held in a bright light, development will take place very rapidly. It only remains to wash the reversed negative so obtained for a short time, for in this case there

ought to be no need to immerse it in hypo. It may then be dried.

If it is found to be too vigorous, it may be reduced by being treated with a very weak solution of acidified permanganate. The result depends entirely upon the first development, which ought to be pushed as far as possible without troubling about fog, for this fog, as will be readily understood, does not remain in the finished reversed negative.

If the gelatin film of the plate does not seem hard enough, and shows a tendency to come off the glass, or to give blisters, when in the solution of permanganate, it can be prevented by the addition of a little alum to the solution. There seems nothing further to add or other difficulty likely to be encountered, when plates of a good quality are employed.

As far as the other applications of permanganate are concerned, the experience I have had up to the present is hardly sufficient to enable me to speak definitely. I may refer to some, incidentally, however. For example, in the case of a solution of permanganate acidified with acetic acid of a similar strength to the other, it will be found that it does not act as a reducer; but that, after the plate has been left in it for a sufficiently long time, and has been treated subsequently with oxalic acid to get rid of the brown stain, the silver image on examination will be



A DUET.



Negative by D. M. Houston,

Joliet, Ill.

A SEPTEMBER LULLABY.

found to have taken a whitish color similar to that possessed by collodion negatives. This image, however, does not act as if it were composed of one of the ordinary silver salts, for it is not attacked by hyposulphite.

If a very dilute solution of the permanganate acidified with acetic acid is employed, it produces a very even yellow color, which is strongest where there is no image. Negatives that are too hard can thus be softened, and unused plates, after being fixed and washed, can be converted into yellow screens. This acetic solution of permanganate is a perfect eliminator of hypo, with this difference from others, that it has no reducing action on the image; but it is necessary after using it to clear the negative with oxalic acid.

The solution of permanganate acidified with sulphuric acid, such as has been already referred to as a reducer for gelatino-bromide negatives, absolutely destroys the latent image. An exposed or fogged plate so treated, and given a bath of oxalic acid and washed and dried, will not be found to possess anything like as great a sensitiveness as it had originally; but if it is subsequently given a bath in a very weak

solution of ammonia, the greater part of its primary sensitiveness will be restored. This method, it is possible, may be of use in restoring fogged plates.—*Photography*.

PROF. R. NAMIAS.

A SIMPLE PANORAMIC CAMERA.

It is often the desire of the landscape photographer to make a panorama view, but with his ordinary view lens and camera his only hope of accomplishing the purpose is to make several exposures, each taking in a different field of the view, and then printing so as to blend the different ends of the views together on a long piece of paper. This process is seldom satisfactory, for not always is the exposure, development and depth of the negative the same; again, the light is not always the same for printing and thus the tones of the different sections are likely to vary. The time and care required in printing is another objection to the process. With all of these troubles staring him in the face the "view man" often leaves a beautiful picture unphotographed. He need not longer do this if he spend a couple of hours of time—and no money—constructing

a rubber-neck or panorama camera, as follows:

First procure a round wooden cheese box and find the exact center of the bottom; from this draw a straight pencil line to the outer edge. Now find

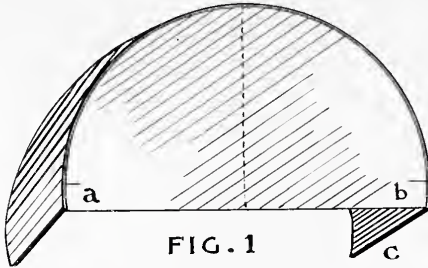


FIG. 1

the diameter of your ordinary view lens (having unscrewed the same from its flange) and add to the line already made, of course, the opposite way from the center of the board, one-half of the measurement of the lens diameter. At this point cut the entire box and lid in two at right angles to your dotted line, as shown in Fig. 1.

Now measure the length of your lens mounting and lay off one-half its length on the pencil line, measuring from the dot at the center toward the outer or curved edge. Now on the same line add to this the distance of back focus required by your lens. If these measurements do not bring you to the curved wall of the box, with compasses reaching from the center to the last point reached draw a line around the bottom board, and with a small saw cut it out nicely and evenly. Treat the lid in a like manner, and nail the curved edges back on to the center pieces cut out.

Be sure the walls are not higher than the covering capacity of your lens. If the box is ten inches deep and you have a 5 by 7 lens, you must cut the walls down to eight inches in height.

Around the inside of the curved edge of the box, next to the bottom, glue a strip of eight-ply cardboard about a half inch wide. Cut from the wall of the box unused a strip about an inch wide and tack it over the cardboard strip just placed. Put strips of card-

board and wood in the same manner up and down the cut edges of the wall. This is to form grooves or a case to hold a film which is to be inserted along the inside of this wall. At intervals tack little tin buttons along the upper edge of the wall so as to hold the film in place and rigid.

Now take equal amounts of copers and small nails, tacks, bits of wire or any fine iron substance and pour upon them more than enough vinegar to cover them and let the mixture stand for twenty-four hours. This makes a splendid black paint which has no gloss and will dry readily. With it paint the inside of the box and lid — paint it *thoroughly*.

Procure a piece of pine board half an inch thick, as long as the distance from *a* to *b* and as wide as from *b* to *c*, Fig. 1. Through the center of this cut a hole a little larger in diameter than the length of your lens mounting. Nail this board directly over the center dot, parallel with the open edge as shown in Fig. 2.

On the inside edge of this board an inch or two each side of the circular hole, fasten a block running from top to bottom of the board and being a little wider than the diameter of the lens. Now get a piece of focusing cloth a little larger than the board and cut a hole in the center of it just the circumference of the lens — cut this hole by slitting the cloth from the center. Put the

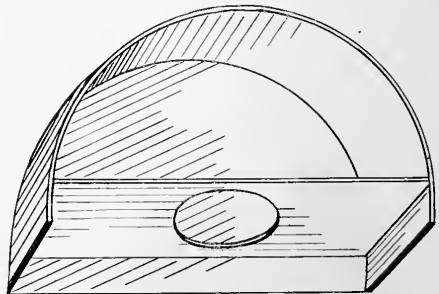


FIG. 2

lens through the hole and at the exact center of the mounting twist two heavy pieces of wire around the mounting over the slits of cloth. Do this nicely.

Twist the wire very tightly so that neither the lens nor the cloth can move from its place in the least. Now bore holes large enough to admit the wire through the front board. Extend them through the edge of the board and through the diameter of the large hole already made. Place the lens in the large hole and insert the ends of the wire in the holes at the top and bottom just made. Tack the focusing cloth loosely over the front of the board. Out of some such goods as Canton flannel arrange another cloth in the same manner on the inner side of the board, only leave the goods very loose and with rubber bands fasten it around the lens. It is best to cover the inside of the lid and the inside of its rim with black felt. Fasten the lid to the front board with little hinges and tack the upper edges of the piece of focusing cloth to the hinged edge of the lid. Now you have a camera! Open the lid, slide your film in place, fasten it with the buttons, be sure your cap is on the lens; go to your favored point of view, set your camera in position (you can place it on a tripod if you desire), turn the lens to one extreme edge, remove the cap and swing the lens to the other edge, replace the cap and it is all over with.

To do instantaneous work, fasten a piece of cord elastic to the inner end of the lens and attach the other end of the elastic to the end of the front board. Turn the lens the opposite direction so as to tighten the elastic, remove the cap—let go—the exposure is made.

GEO. F. GAVITT.

AMATEUR PHOTOGRAPHIC CONTEST.

Steelton Camp, Modern Woodmen of America, Steelton, Pennsylvania, announces an amateur photographic contest, to be held in the Association Hall, Y. M. C. A. building, on January 24, 25 and 26, 1901. Nineteen prizes are offered. Full particulars from William H. Whitebread, secretary, Steelton, Pennsylvania.

The Photo-Beacon "Exposure Tables" are guaranteed to be correct. Price, 25 cents.

A PLEA FOR BACKING.

Often has the amateur photographer been cautioned never to make an exposure toward the source of light and thereby bidden never to make an effort to obtain the most artistic pictures, for with the light behind the camera you can not obtain shadows, as they are thrown away from it and hidden by the objects which cast them. And one glance at a photograph with shadows and one without will convince you that the former is far more expressive and pleasing than the shadowless picture. So dispense with the old rule: "Avoid pointing the lens toward the source of light," and get some pictures worthy of the name.

Experience has taught us that a soft blending of light and shade is equally as important as a good subject to make an attractive photograph. Therefore, noon is not a good time to make an exposure out of doors, as the sun is usually too intense, and makes too much contrast, causing the picture to have a harsh look, and giving the foliage a speckled appearance which is very irritating. Many pictures taken at noon that have not "panned out" well might have been very pleasing if taken at any other time. But

"Of all sad words of tongue or pen
The saddest are these, 'It might have been.'"

You will find that having the light shine on the camera about half way between either side and the front makes a very artistic lighting; and if the exposure is made in the morning before ten or half-past, or in the afternoon not earlier than three, the shadows will be quite long and beautiful.

This manner of lighting will give the photograph expression and make the important objects—such as trees, boats, figures, etc.—stand out in bold relief against the sky or their immediate background, as it tends to show the light and atmosphere existing between foreground and distance or between objects. And the shadows cast will give the objects which cast them individuality. This lighting will also give trees, etc.,

their natural rounded form. They too often have the appearance of a flat bunch of leaves and branches plastered against the sky or background instead of their beautiful curves and roundness.

So much has been written about returning to the prospective scene until the lighting is satisfactory that I will not expand on that subject, for all who have had any experience know that



A BERKSHIRE ELM.

Showing the effect of a backed plate. Made on Carbutt backed ortho plate.

We can not compete with nature, but we can imitate her very well if the lights and shadows are artistically photographed, and this can only be done by studying the view and making the exposure at the correct time and position.

patience and perseverance are two very necessary qualities in a good photographer. But I will say, observe the light and shade carefully, see if the shadows are visible from the position of the camera, and this done, if your

subject is at all hopeful, you are reasonably sure of a good effect.

A picture with shadows will attract attention and gain admiration more readily than a shadowless view, because the latter is more apt to be "flat." A flat picture may be a good technical reproduction, but had best be confined to photographs of drawings, etc., for commercial purposes.

Another mistake amateurs are apt to make is putting too much dependence in colors. This is especially true in the season

"When the frost is on the pumpkin,
And the fodder's in the shock."

Never does nature deck herself out in such a bewildering array of colors as in the autumn, but I warn all my friends of the camera not to be deceived by them. These are gorgeous in nature, but what a dismal failure our picture is when the subject's chief merit is color! There are usually too many other reliable qualities for you to waste your time chasing such a will o' the wisp as color. Therefore, do not snap every bit of foliage you admire because of its color value. A careful distribution of light and shade is of far more importance.

I know many will say a satisfactory exposure can not be made facing the light, as suggested, because of halation, but here I make my plea for backing. For the benefit of those who may not know just what is meant by "halation," I will say it is the white, misty appearance often seen in interior photographs around windows, open doors or artificial lights, and around tree tops. It is caused by the light passing through the film and glass and reflecting on the back of the film. To conquer this evil, a preparation called backing must be applied to the glass side of the plate, which is capable of absorbing the rays of light and thus prevent their reflection on the back of the film.

Caramel mixtures and paper backing have been tried but have not been satisfactory because they were either too mussy to handle or not capable of absorbing the rays of light. But there are two or three good backings on the mar-

ket which are convenient to handle, and when the results are considered it seems incredulous that backed plates are not more universally used.

You need not fear the direction or intensity of the light if your plates are backed, and they will enable you to obtain pretty interior photographs where windows are to be included, or will overcome the reflection in snow scenes.

For photographing machinery, china, glass, silver and all glistening wares, they are indispensable. These are all severe tests, cut glass and silver especially, but with a backed plate and facing the light, you may be sure of a good reproduction with detail.

Backed plates are a great advantage when photographing black-and-white drawings, maps, etc., and will give excellent results when making lantern slides and transparencies by reduction and contact.

Last, but not least, backed plates are a great help in portrait work, as they will enable you to get all sorts of odd lightings which are so "catchy," and so difficult to obtain with unbacked plates.

And there are other things too numerous to mention, such as procuring detail in laces, white draperies, etc., that a backed plate will do, and to all "doubting Thomases" I would say, "The proof of the pudding is in the eating thereof," so try it yourself and be convinced.

Now, what photographer, be he amateur or professional, could not be benefited by the use of backing? Backed plates will improve *every class* of work, unless you belong to the "mop and pail brigade," better known, perhaps, as the *bum* bichromatic-process class, as the so-called photographers who strive for very hazy, blurred and fogged effects, have been named. And I would think that even they would like a clear picture now and then to see what they are doing.

There is nothing a backed plate will not improve, and I am sure you would be convinced if you would but try a backed and an unbacked plate on the same subject, and under the same con-

ditions. And I believe you would join me in thinking — nay, knowing — it is one of the simplest things that can be done in photography to obtain such beneficial results.

NELLIE G. PARKER.

Chicago, Illinois.

COLD WEATHER WORK FOR THE AMATEUR.

One of my old lady friends (who, by the way, has great satisfaction in believing herself as both poetic and artistic in taste) recently remarked to me: "Well, Doctor, now that the beautiful autumn leaves in all their rainbow splendor have fallen at the approach of stern old winter, and the many shades of green have faded from the grassy carpet, I suppose that you will be compelled to lay aside your camera and developing tray and seek recreation in some other direction."

Well, now, what do you think my reply was? I assured the old lady that my work done during the summer had all been in the line of preparing material for the winter evenings. Often it is quite difficult for a busy man to steal time from regular work which is just adapted for landscape photography. Leisure days are so apt to be stormy, or for some other reason ill-adapted for exposure work that there is much worryment and vexation in doing anything satisfactory even when plans have been carefully made for weeks. Of course, we feel bound to bring home a lot of negatives, good or bad, from our summer vacation, and after a terrible struggle succeed in completing the job of development so as to know the worst. Happy that amateur who had mastered tolidol tank development before he undertook the great pile of plates exposed in vacation time. To those as yet ignorant of the workings of tank development let me say that you had best spend your first leisure time in that line, so as to be capable of in the future escaping all worryment caused by a pile of plates and no spare time to develop them.

But I am drifting from my subject — What to do this winter.

Look over your proofs of the negatives carefully stored away, and see where the faults come in. While negative envelopes are convenient I admire boxes, easily prepared by using the crinkly packing paper tacked on the sides to slide the plates in. You can take the unsatisfactory plates and put them in a bunch for experimental work. One needs general reduction, and here is a beautiful chance to try the new ammonium persulphate. Another needs intensifying, and there's lots of fun trying that process. Then the local strengthening or weakening of some faulty part of a picture is a pleasant task. Some negative may have for a long time seemed not quite a success for some undiscovered reason; now is a good time to search for and remedy that fault. Even a different paper may make all the difference in the world. Try it.

Mask out a part in printing, if that be too dark, until the rest has had a part of the printing time, and then remove the mask and let the whole be exposed until time is up. Of course, the mask must not be held still, but kept moving back and forth, up and down, to avoid a line on picture. Where you have a well-exposed plate you can often thus bring out beautiful clouds, that you "wot not of." In portraits, often a faintly defined feature, as a mouth or nose, may be much improved by printing a while at first through a hole in a piece of paper, a little larger than the faulty feature.

Then we have "faking" or holding the desired part close to the lamp, so as to get a vignettted effect.

The white line around the print mentioned with Vinco paper, and obtained by pasting a strip of black paper around the negative, is often very effective in adding to the beauty of a flat print.

We too often are in such a hurry as to hold the frame too close to the light in night work and so get only a black and white daub. More distance and more time will soften the effect the same as shade. Daylight printing is an improvement over printing in the bright sun. Printing through tissue paper is a wonderful help to the thin negative.

Several negatives of mine, inside portraits, underexposed, black-and-white horrors, have given me lots of satisfaction after painting out the background entirely, the picture having a much admired, statue-like effect.

Now is the time to try a little retouching. Begin with working out the pinholes, remembering that it is no small task to learn to do this properly. Next comes a more difficult matter — that of filling up spots of bare plate — by brush

icated and so spots are beginning to appear — precursors of entire destruction of the film. Give them another wash. Some slightly marred films from careless handling will derive benefit from rubbing down with soft kid or chamois, wet with alcohol. Others may be rendered more permanent by applying a thin coat of negative (not retouching) varnish.

If you have one or two (most of us do) which you would not part with at



Negative by Geo. M. Crowe,

Los Angeles, Cal.

A SCOTCH LOCH.

or otherwise. Scraping with the knife requires skill difficult to acquire without a teacher.

You probably have on hand a lot of underprinted silver prints, carefully stowed away, for you know not what. Instead of burning them up try redevelopment some evening with a *very*, very weak solution, and the desired shade will be even too readily obtained. It is almost impossible to get the solution weak enough.

Then some of those highly prized negatives can be carefully looked over lest the hypo has not been entirely erad-

any price, then anticipate catastrophe by getting a process plate and making a positive and from that another negative just like the first, thus halving the feared risk. At the same time the positive can be used as a transparency.

If you own some of the old-fashioned pictures done on glass and backed with a black tin plate you can easily make some copies and relieve the constrained feeling that only one of the children could own grandmother's picture when she was a girl.

Those vacation pictures, when all completed to your satisfaction, would

make a nice collection for an album by themselves, and it costs but a few cents to add the title in gilt letters. When you are relating some incident of the trip a picture does so help to point the tale.

Well, kind reader, we must stop here or else write a treatise, which we do not propose to do. I have avoided the mention of lantern slide and stereoscopic work, as I wished to avoid as far as possible all that would necessitate extra expense above the ordinary material kept on hand by the true amateur photographer who does his own work. The other sham variety is a blot upon suffering humanity.

And here let me say one thing more, pardon the digression, and I will close. Why is it that public exhibits of home industries, as country fairs, etc., where prizes are offered for amateur photography, obtain so few entries of competing pictures? I ask this question in order to answer it myself. Because the honest amateur has no chance. The button presser, pure and simple, crowds in his pictures, finished by some hired professional, and these dazzle the poor judges, who feel compelled to grant the prizes where they know they do not honestly belong. The sentiment of the true picture may be wholly absent, regardless of composition, light and shade, etc., but the polish is fine, well burnished, well mounted and well retouched (often retouched to death). Is there no remedy by which justice may be secured by the honest amateur exhibitor? Yankee-fashion, I answer one question and ask another.

LEONARD D. WHITE, M. D.

value. Full particulars in the advertising pages.

ANNOUNCEMENT TO THE PHOTOGRAPHIC TRADE.—The undersigned take pleasure in announcing that the Century Camera Company, of Rochester, New York, has been organized for the purpose of manufacturing folding hand cameras and a general line of fine photographic goods. While the company is a new one in the field, its officers and directors are all men of experience in the camera business, having been in touch with the trade for many years, by reason of their association with the original Rochester Optical Company, under the management of Mr. W. F. Carlton, and its successor, The Rochester Optical & Camera Company. Nothing will be too good for use in the making of Century cameras. Quality is our watchword, and we will aim to have our product of so high a standard that the name "Century" will be a synonym for all that is best in camera construction. We will offer the trade, at an early date, a distinctive line—made so by numerous improvements, not only in the cameras, but also in our lenses and shutters. With a line of goods unexcelled in quality, and a broad, liberal policy in harmony with the trade, the Century Camera Company hopes to merit a share of your patronage. Very sincerely yours,

J. M. WALMSLEY,

G. E. MOSHER,

G. J. MACLAUGHLIN.

Century Camera Company, Rochester, New York.

EDITORIAL TABLE.

TRADE NOTES.

THE Vogt Optical Company, 11-19 Atlantic avenue, Rochester, New York, announces itself as being in thorough working order and to be ready to supply customers with Vera Matt, a collodion matt paper; Victor, a gelatin printing-out paper, and Veda, a gas-light developing paper. The company is also manufacturers of the Voco shutter, which has many new points of

FROM Edward L. Wilson, 289 Fourth avenue, New York, we have received a copy of "Mosaics," being the thirty-seventh volume of this annual. As usual, it begins by giving a very careful digest of all the new ideas, inventions and improvements in processes that have appeared during the year, and is thus an epitome of the year's work. The balance of the book is devoted to a series of very practical articles by practical men, and he is well posted indeed who can not find much valuable information and food for thought in these pages. A very interesting feature of

the volume is the reproduction of eighty portraits by as many prominent photographers. The book is cheap at 50 cents.

THE *American Cat News* is the name of a new publication whose first number appeared in December. It is the first journal of its kind to be published in this country, and if every cat-lover could be tempted to subscribe to this journal the circulation would run into millions. It is beautifully illustrated with pictures of cats—long-haired and short-haired, old and young, black, white and variegated in colors, prize winners and—just

cats. Subscription price \$1 a year. Address *American Cat News*, Cable building, Chicago.

THE Wisconsin convention, it is announced, will be held early in March at Milwaukee, and the officers have just issued the prize list. Nine handsome trophies are offered in as many classes. Full particulars from W. T. Ross, secretary, Appleton, Wisconsin.



CONDUCTED BY FRANK H. BALL AND GEORGE J. FOWLER.

INSTRUCTORS OF MANUAL TRAINING, CHICAGO

SOME SIMPLE MODELS.

We have been requested by a correspondent to give some more of the simpler models used in our line of work, and it was suggested to illustrate some of the objects that can be made by the little children, calculated to train the mind and hand to work together toward a definite end, and to lead up to more complicated problems.

Nearly every child, early in life, craves for a set of tools, and the parents would gladly purchase them if they thought there was anything the child could make with them, but oftentimes there is a dread of the furniture being damaged, a leg sawed off from a chair or some other reason which bars tools from the child's use. There is great educational value in teaching a child to construct with his own hands what the mind conjures up as useful or desirable to own. To this end some instruction is necessary and a start must be made upon a model that is not too difficult for the child to master.

We gave last month some very simple planing exercises which may be followed with a pin wheel (Fig. 1 and Fig. 2), consisting of two pieces of cigar-

box wood 1 inch wide and 6 inches long, four pieces of card 1 inch by $2\frac{1}{2}$ inches and a handle 4 inches long, made of $\frac{1}{4}$ -inch dowel, pointed at one end to reduce friction. The two pieces 1 by 6 are crossed at the centers and glued together at right angles to each other, forming a cross. At the four ends are glued the pieces of cardboard which are bent upward at about forty-five degrees and thus form the wings. There is

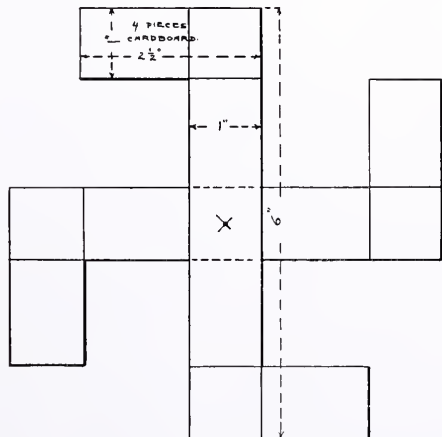


FIG. 1.

a small wire nail for the axis, which passes loosely through the cross-pieces and is driven into the sharpened end of the 4-inch piece of dowel.

The cards might be of two different primary colors, for example, red and blue, in which case they should be set so that the colors alternate, and when rapidly rotated the appearance will be purple, illustrating the secondary color

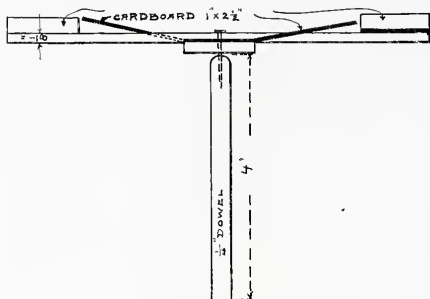


FIG. 2.

produced by the two primary colors, and also the duration of the impression of light upon the retina of the eye.

The shadow stick shown in Figs. 2 and 3 is interesting in determining the difference in the length of days at different times of the year by the length of the shadow cast by the sun. It should be placed somewhere where it will not be disturbed and where the sun will shine on it at least during a part of the day. Notes should be kept of the length of the shadow cast by the upright piece at the different hours of the day and the date marked. Comparison should then be made of the difference in the length



FIG. 3.

of the shadow of the same hour on different days. If the instrument be so placed that it cast a shadow four inches long at eight o'clock the morning of the first day, and the shadow is at the same

mark at seven o'clock on another day, the difference in the length of the day will at once be noticed.

To make the shadow stick select a piece of stock $\frac{1}{4}$ by $2\frac{3}{4}$ by 14 inches.

1.—Plane a working edge and mark same.

2.—Measure from the working edge and draw a line for the width.

3.—Plane the other edge to this line.

4.—Square a line across the face about $\frac{1}{4}$ inch from each end and saw off with the backsaw, using the benchhook. This is called squaring the ends.

5.—Measure the length of one piece from each end and square lines across.

6.—Saw off the pieces.

7.—Mark the curved outline of the small piece on both edges and the upper end, and plane to shape, planing diagonally across the grain.

8.—Sandpaper and nail together as shown.

9.—Square lines across the working face $\frac{1}{2}$ inch apart.

THE PHOTO-BEACON.

AN ILLUSTRATED PHOTOGRAPHIC JOURNAL,
Published Monthly.

Yearly subscription, \$1.00, in advance; single copies, 10 cents.

All remittances should be sent by postoffice money order, draft or registered letter to the order of THE PHOTO-BEACON COMPANY.

Unless otherwise directed, subscriptions will commence with the number issued during the month of receipt of subscription order.

Accepted literary articles will be paid for upon publication.

Secretaries of photographic societies are requested to favor with brief reports of their meetings.

Subscribers advertising secondhand apparatus for sale or exchange, special articles wanted, help or situations wanted, *one insertion free*.

To insure insertion in any particular number, copy for advertisements must be received not later than the 20th of the month preceding.

All communications relating to THE PHOTO-BEACON should be addressed to

THE PHOTO-BEACON COMPANY,

TRIBUNE BUILDING,

CHICAGO, ILLINOIS.

Eastern Office: 611 to 621 Broadway, New York.



Negative by W. F. James,

HAZY MORNING.

Chicago.

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EDITED BY F. DUNDAS TODD.

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VOL. XIII.

FEBRUARY, 1901.

No. 2.

ANNUAL EXHIBIT, CHICAGO SOCIETY OF AMATEUR PHOTOGRAPHERS.

In accordance with their custom, the Chicago Society of Amateur Photographers began the year by hanging on the walls of the clubroom selections from the work made by the members during the past twelve months. It was an exceedingly interesting exhibit, and, when one considers the results shown even a few years ago, a truly surprising one. It took Chicago no little time to realize that there was a pictorial side to photography, but now she knows the fact, and the knowledge is being converted into work. We have made a selection of sixteen pictures — we wish we had space for more — and reproduce them for the edification of our readers.

We have not reached the nightmare stage of art in Chicago, for the simple reason that we are in close touch with nature's facts and nature's laws, and know much of the real joy in living. Nothing is finished, everything is growing, so we are forced to learn and to do. Naturally we enjoy life; it is a positive pleasure to live in Chicago, with all its smoke and dirt, for each day brings new experiences and gives a new zest to life. So Chicago art is joyous and exuberant, and long may it remain so.

LITERARY COMPETITION.

From the matter sent in during December we have made the following selections:

First Prize — Chester M. Whitney.

Accepted (not arranged in order of

merit) — W. C. Turnbull, Oscar Von Engelin, Walter G. Teuton, William E. Brown, Julius C. Englehart, W. Marshall, Samuel Hobbins, George W. Bucklin.

PICTORIAL COMPETITION NO. 32.

From the great interest that has been displayed during the past year in the use of isochromatic plates, especially combined with the ray filter, we expected an interesting competition, but were disappointed. Not one really good picture was sent in, and only one gave indication that the photographer really appreciated true tone values. It accordingly was placed first. Two others had to be awarded and selections were made, but the judges honestly felt that they were not worth it.

We wish to again say that the purpose of a ray filter, with an isochromatic plate, is not merely to show clouds in the sky, but to render color values, as the eye appreciates them. This is the hardest part of a photographer's education, but must be undertaken by any one who wishes to make pictures.

We reproduce only one of the prize prints, as we consider the others not worthy of a place in our pages.

PRIZE AWARDS.

First Prize.— John H. Pratt, 6420 Stewart avenue, Chicago.

Second Prize.— C. N. Walker, 46 Merrick street, Worcester, Massachusetts.

Third Prize.— J. B. Watson, Warsaw, Indiana.

PARTICULARS OF WINNING PICTURES.

First Prize.—Made in August, 1900, on Cramer Instantaneous Isochromatic plate, with ray filter; stop 64, exposure one and one-sixth seconds. Printed on Portrait Velox.

Second Prize.—Made April, 1900, 2 P.M., on Hammer fastest plate; stop 32, exposure three seconds; Poco ray filter. Printed on Carbon Velox.

Third Prize.—Made in September, bright light, Cramer Instantaneous Isochromatic, open stop, exposure one-twenty-fifth second. Printed on Aristo platino.

FUTURE COMPETITIONS.

Competition No. 34.—Lantern slides; any subject. Closes February 28.

Competition No. 35.—Snow pictures. Closes March 31.

Competition No. 36.—Interiors. Closes April 30.

Competition No. 37.—Branch of a tree without leaves. Closes May 31.

Competition No. 38.—Domestic animals. Closes June 30.

Competition No. 39.—Genre pictures, or pictures that tell a story. Closes July 31.

Competition No. 40.—Branch of a tree with leaves. Closes August 31.

Competition No. 41.—“At Home” Portraiture, that is, portraits not made in a studio. Closes September 30.

Competition No. 42.—Snap-shot pictures. Closes October 31.

Competition No. 43.—Landscapes. Closes November 30.

Competition No. 44.—Flower pictures. Closes December 31.

RULES.

1. There is no restriction as to the number of pictures to be sent in. On the print there should be written the title and the sender's name and address, but nothing else. Accompanying, a letter or postcard should be sent us, giving full particulars of date, light, plate, stop and exposure given; also the printing process.

2. Mark outside of package with number of competition. Ordinary letter rate must be paid where descriptive matter accompanies prints.

PRIZES.

First.—Books to the value of \$5.

Second.—Books to the value of \$2.50.

Third.—Books to the value of \$1.

Any books, on any subject, or if preferred, any article we can buy in Chicago.



Negative by Chas. C. Cook,

SUNSET.

Chicago.

PORTRAIT POSING AND LIGHTING.*

BY J. H. VANDERPOEL,

Head of the Department of Figure Drawing and Painting in the Art Institute of Chicago.

CHAPTER II.**COMPOSITION.**

To study composition by line, through the three dimensions, enter carefully into the following experiment. Run dry clean sand gently from the hand through the aperture between the little finger and the palm upon a flat surface, and it takes the shape of a low cone. Viewed from the level of its base it marks the form of a pyramid (Fig. 3), giving height and breadth; from a bird's-eye view the base is circular (Fig.

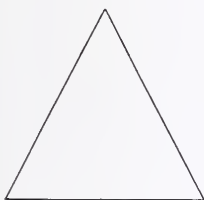


FIG. 3.

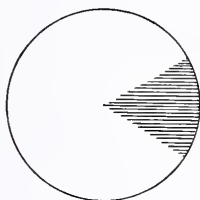


FIG. 4.

4), giving breadth and depth; but to convey the three dimensions equally, the eye must be located more or less between top and bottom (Fig. 5), giving the base the appearance of an oval. A cone is virtually a pyramid with its edges and corners removed.

This pyramidal form is the elementary basis of all pictorial composition, as it gives balance, symmetry and repose to well-arranged forms within its borders, the lateral borders confining the



FIG. 5.



FIG. 6.

vertical mass of the group, the circular base the ground plan. This pyramidal form may be high like an obelisk (Fig.

6), or low like the pediment of the Parthenon (Fig. 7), with unlimited variations between the extremes. But one consideration is always paramount, the pyramidal confines of your figure or group must have stability—the center of gravity must be maintained, other-

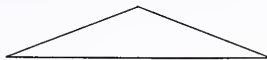


FIG. 7.

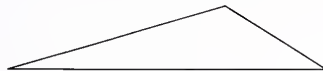


FIG. 10.

wise sense of balance will be destroyed. Only too often do we see photographers entirely ignoring this law of gravity. Children standing on chairs, leaning against the back, are not infrequently caught, apparently, in the act of toppling over, proving, as it were, the ability of instantaneous photography to convey the impression of motion. Again we see figures leaning too heavily upon pedestals or stands as if in fear lest both fall in a heap (Figs. 8 and 9).

As previously remarked the pyramidal form is possible of great variation by differences in height, but its primary

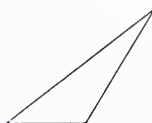


FIG. 11.



FIG. 12.

form may be varied in another manner; the rise to its apex may be much longer on one side than on the other (Fig. 10). In case of decided action, as a man running or a dramatic pose, the form enclosing the action may be out of plumb (Fig. 11), but by opposing it with some other form (Fig. 12) or line reversing the action, the whole immediately assumes the pyramidal form, giving solidity to the group without impairing the action. In the case of two figures in repose, instead of repeating their lines either vertically or diagonally, let them vary and overlap in a manner to produce the pyramidal form; this varying of the direction of the figures and their

*Copyright, 1901, by F. Dundas Todd.

overlapping will give cohesion and grace to the grouping.

In single figures and occasionally in an arrangement of two figures a few photographers give evidence of thought in the matter of composition; but why is it that artistically treating a group of a number of figures is never attempted? The best photographers shun

that adorn thousands of walls in the form of class pictures. The poor students, arrayed in their graduating garments, are set up like so many ten-pins. Self-conscious in spirit and awkward in pose, they are placed tier upon tier to have the camera snapped upon them. No grouping, or relation of one figure to the other; in fact, instead of the pic-



FIG. 8.

This is an example of instability in composition, the line forming the left side of the triangle being within the center of gravity instead of outside of it, and consequently the figure appears to be falling over.

the effort as if the limitations of photography absolutely forbade success. True, the limitations in photographing a large number of figures may be great, but hitherto the results have been absolutely bad and seemingly inexcusable. For within the limitations, technically and otherwise, there must be room for some artistic possibilities in the way of composition. Think of the nightmares

giving the least hint of the arrested joyousness of their schooldays it is more suggestive of ghastly resurrections. Then the family groups, in which all look unhappy, through the photographer's stilted ten-pin arrangement. What a pity this wealth of artistic material is so generally wasted. First, variety in age from child to grandparent and of both sexes, what an opportunity

for posing and grouping; then the variety in attire as a means pictorially should not escape attention, the lighter masses of the children's and young girls' clothing should be carefully weighed in their juxtaposition with the darker and more severe dress of the older members of the family.

photographer's careful forethought in keeping his sitters at ease, and arranging the members sympathetically with each other and so conveying a sense of intimacy that is permissible in the home life.

In such a composition as a family group, the apparently oval base of the



Negative by C. T. Aland, FIG. 9.

Greenville, Pa.

This is a beautiful piece of composition. Special attention is drawn to the feeling of repose and stability, resulting from the triangular form of composition. There is special beauty in the disposition of the arms, while the feeling of solidity is attained by the three-quarter side view of the body, the arms and hands being so posed that they carry out the idea of this view.

The mutual interest that binds every member of the family as a group should not be banished when they cross the threshold of the gallery. Rather cultivate this interest and preserve the natural relation that exists between them, thus avoiding stiffness in action and stolidity in expression. Let the main endeavor be to portray a group as if in arrested action, the outcome of the

cone or triangle that encompasses the figures should be used as the ground plan of the arrangement. By way of illustration, imagine a group of six figures, a father, mother, a youth and older sister and two younger children agreeably posed and arranged in keeping with the above suggestions. Beginning at the left on the upper half of the oval of the foreshortened circle, the eye should

rise to the apex of the triangle enclosing the most important mass in the group, then slowly descending approach a point above the turn in the oval on the right and coming about again turn to the left, descending abruptly to the nearer half of the oval to a point about a third of the way from the right. This permits a part of your group overlapping the main mass, but at a lower elevation. The eye in this manner, through the forward movement of the line in its rise and fall, becomes conscious of the third dimension (Fig. 12).

It has now been shown that the pyramid or triangle, which is capable of

should be felt rather than seen. However, in the art of photographic portraiture, repose, dignity and grace are primary essentials and are more likely to be secured through simple masses and balanced lines—care always being taken not to mistake stiffness for dignity and collapse for grace.

The art of pictorial composition is essentially constructive, irrespective of its application, whether in architecture, sculpture, design, painting or photography—as much in the painting of a picture as in planning a building or bridge. The photographer, like the painter, should habituate himself to the

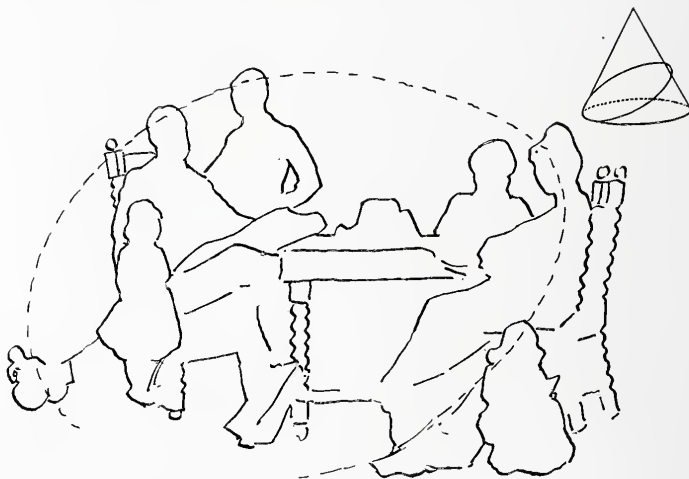


FIG. 13.

infinite variations, contains the fundamental principle of composition in pictorial art, applying with equal truth to a single head, the figure or a group. In early ecclesiastical art, formal repetition was conformed to literally, each figure repeating the form of an opposite one in pose and gesture. This spirit of formality was in keeping with the religion of the times and in conformity with the lofty character of the churches. In pictorial art this literal repetition of line in form and figure for the purpose of procuring balance and symmetry is unnecessary and altogether too severe. The disposition of figures and masses should be such that the effect of balance

forming of mental pictures. This of itself is of the highest esthetic value, since it keeps the eye continually occupied, consciously or unconsciously, with the various requirements in a work of art as suggested by nature. Continual observation and the forming of mental pictures of effects of light and shade, harmonies in color, grace of line in a pose, a dignified carriage and the grouping of figures, will shortly reflect in the work of the photographer most favorably, as it does in that of the artist. Decided failures may mark the beginning of such efforts, because of lack of experience in giving every requirement due consideration. But it is only by making

every effort a motive — a something artistic to be conveyed, and every motive a study that progress and success can be attained. This mental picture work might well be attempted in the order that the various artistic requirements are touched upon in these articles, beginning with composition along the lines suggested in the above.

In the next article, the circle, oval, the reverse curve or line of beauty, and diagonal lines as the means of connecting and binding the parts of a composition, will receive full attention.

(To be continued.)

BEGINNERS' TROUBLES.

CHAPTER II.

IN THE DARKROOM.

The darkroom, developing formulæ and finger-staining chemicals have frightened many an amateur into taking his plates to a professional photographer for development. Of course, we are not all built alike, and some may be so constituted that darkroom work, even though understood, would be quite disagreeable. But to me it is by far the most interesting part of the art.

Some hesitate to undertake their own developing because of the lack of a darkroom and suitable appliances with which to work. There is a great deal of satisfaction in working in a well-fitted-up darkroom; but it is surprising how little one can get along with in a pinch. Many a time I have gone to my room in a hotel and, by closing the blinds and hanging a blanket over the window, improvised a darkroom. The wash basin would serve for a fixing bath, the slop jar for a washing tray. I would then make a darkroom lantern by rolling a double sheet of postoffice paper into a cylinder, pinning it in that form, and setting it over a lamp or candle. Then I was ready to develop in the tray I usually carried, though I have improvised a developing tray by lining a plate box with glazed writing paper. Now I do not advise my amateur friends to be satisfied with such apparatus as these. I simply want to show

what a little patience and ingenuity can do.

If one lives at home there is usually a closet that can be made into an excellent darkroom. Failing that, the kitchen or bathroom could be used, and the developing done after dark. But it is my purpose in this article to make some suggestions on how to work in a darkroom, not how to make one.

To begin with, I want to say a word about cleanliness. The darkroom should be the neatest, most orderly place imaginable, but far too often it is just the reverse. Everything that ought not to be seen is thrown into the darkroom, where the light is not so apt to show up the untidy corners. Empty and half empty bottles are left standing around promiscuously. Sometimes they are labeled, but more often not. Developer, hypo and various other solutions are spilled upon the floor and left there to dry. The chemical dust thus left on the floor is kicked up by shuffling feet and settles in the plateholders and trays, on the plates, in fact everywhere. If you are ever troubled with pinholes in your negatives, try cleaning



Neg. by Dr. C. H. Parker,

Chicago.

REVERIE.

out your darkroom, as well as dusting plateholders and camera, and see if the trouble does not disappear.

I do not know that it will be possible to say anything new about developers. Every photographer has his favorite. Perhaps the majority of professionals still cling to the good old pyro, and for their use it has hardly been improved upon. Amateurs do not take so kindly to pyro and, where few plates are developed at a time and perhaps none at all for a week or two, it has some drawbacks when mixed according to most formulæ. In THE PHOTO-BEACON of July, 1899, William Bullock gave a formula for pyro developer that I have found as good as it is simple. If you use pyro try that formula.

Here is my favorite developer for all-round purposes:

Water.....	80 ounces
Metol.....	$\frac{1}{8}$ ounce
Sulphite Soda.....	4 ounces
Hydroquinone.....	$\frac{1}{2}$ ounce
Sal Soda.....	6 ounces

This developer keeps well, but if it is to be used slowly it is best to keep it in several small bottles filled to the neck and tightly corked. It may be used repeatedly — until it gets too weak to act.

For Velox paper I use this developer full strength, and to each ounce add a drop of a fifteen per cent solution of salt. For lantern slides and transparency plates it should be diluted with an equal amount of water and from four to ten drops of the salt solution added to each ounce. For plates, normal exposure, I use two ounces of developer to three of water. About the correct proportion for bromide paper is one ounce of developer to two of water.

With any developer it is better to vary the quantity of water than to alter the proportions of chemicals to correct a faulty exposure or modify the character of the negative. For an undertimed plate use more water, if it is overtimed use less.

Right here I want to say a word about under and over exposures. You are sure to get them sometimes; apt to get them often. For that reason it is important

that you be able to recognize them and here are two simple methods by which they may be distinguished.

In developing an underexposure the high lights will appear quickly and develop up strong and vigorous, while the shadows are still clear glass. An overexposure will slowly darken all over the plate and will show little or no detail as you look down upon it in the developing tray. If the plate has been properly timed the high lights will appear first, but they will be quickly followed by the half-tones and shadows and all will acquire proper density together.

The other method is to take the negative after it is dry, hold a black cloth behind it, and look at it by reflected light. If it shows a positive best on the film side it is undertimed. If the positive is better on the glass side it is overtimed. If neither side shows a positive, or if it is equally good on both sides, the exposure has been correct.

For a fixing bath there is nothing like a freshly mixed solution of plain hypo. About one part of hypo to four parts of water is the correct proportion, but in warm weather it may be used much stronger. Alum may be added to the fixing bath and it has a tendency to keep the bath from discoloring, as well as to harden the film. But hypo will not discolor with one batch of plates and, as it costs so little, it is poor economy to use old fixing bath. Fresh hypo is itself a hardener, and under ordinary circumstances no other will be required.

I have often developed, fixed and washed my plates in one and the same tray. This may be done with safety if one is careful to wash the tray thoroughly after using it for hypo. But trays should *always* be washed before being put away, no matter what has been used in them.

J. EDGAR ROSS,
Healdsburg, California.

F. L. SCHAFUSS & Co., New York, in the advertising pages draw attention to a very handsome line of new albums they have just got out for the season of 1901. The styles vary in prices from 35 cents to \$2.50.

VOIGTLANDER AND I.*

BEING THE REMINISCENCES OF JAMES F. RYDER

CHAPTER II.

The first daguerreotype I ever saw was shown me by Mrs. Jack Masten, our nearest neighbor, who came bursting into our house one morning as excited as a child, to show my mother a new wonder she had just received from New York. It was a likeness of her sister, Miss Julia Turnbull, a ballet dancer of the New York theaters.

The letter accompanying and explaining this likeness said it was a new discovery by a Frenchman named Daguerre, and the picture was called daguerreotype.

The process for producing the newly discovered method was brought from Paris to New York by Prof. S. F. B. Morse, the father of telegraphy. The likeness I saw was taken by a Mr. Plumb, who had just opened a studio on Broadway. That picture was the first image I had ever beheld made by a camera. I had never seen a camera and would not have known what it was had one been placed before me. The picture was a wonder to me, and as the first will always be remembered, I recall with distinctness how it looked, can see how the hair was braided, and that she wore a low-neck dress. Suspended from a chain about her neck was a handsome locket.

Altogether she was a bright looking and pretty girl. I thought the picture fine and carried the remembrance of it in my mind as a mental study, striving to make my own work resemble it.

In after years, the same Julia Turnbull, whom I had never met in person, came into my gallery in Cleveland to have photographs taken. She had grown away from the bare shoulders period and abandoned the locket. She knew nothing of the part her daguerreotype had played in my early struggles as a learner. She seemed like an image risen out of the past, which had been something to me "once upon a time."

The Professor was anxious for my



JAMES F. RYDER (age 20).

From a daguerreotype.

progress and helped me all he could. He encouraged me, praised my work as promising and satisfactory, assured me I was surprisingly good for a beginner, and told me it would be greatly helpful for me to work out the difficulties alone, rather than depend upon him.

The fact was I asked too many questions, many of which he could not answer. In the first few years most practitioners were plodding in the dark, something like "the blind leading the blind." There was no literature bearing upon the subject beyond the mere statement of routine description, no sure road yet opened to successful work. "Professors" were more plentiful than intelligent teachers. In our work repeated trial was the rule—we would try and try again without knowing the cause of failure. Many a day did I work blindly and almost hopelessly, pitying my outraged sitters, and pitying myself in my despair and helplessness. The weak excuses and explanations I made to cover my ignorance were many. The lies I told, if recorded, would make

*Copyright, 1900, by James F. Ryder.

a big book which I would dislike to see opened.

You moved! headed the list.

You looked too serious!

You did not keep still!

You winked too often!

These and other fabrications to show the necessity for another sitting were made with great efforts at cheerfulness, but the communings with my inner self in the darkroom while preparing the next plate would hardly bear the light, and were best left in the dark.

After three months' practice I had gained confidence and some skill. The Professor could and did trust me with his business when on occasion he went out to arrange for and deliver lectures in the neighboring villages. These lecture outings were productive of advantage to the business in daguerreotypes. He made acquaintances who came in for likenesses and in turn the picture business played into the hands of the lecture field. We were not accused of driving "a trust" or "a combine," but photography, phrenology and biology were all handled from our headquarters at 137 Owego street, over J. M. Heggies' harness store, Ithaca, New York. It was no uncommon thing to find watch repairers, dentists and other styles of business folk to carry daguerreotype "on the side." I have known blacksmiths and cobblers to double up with it, so it were possible to have a horse shod, your boots tapped, a tooth pulled or a likeness taken by the same man; verily a man—a daguerreotype man, in his time, played many parts.

I remember one day the Professor was sent for from one of his lecturing stands to go and take a picture of a young child that had died, and he took me along to assist. It was my first experience in such work, and I was glad to go. The child was a dear little girl, and we arranged her upon a couch as though in sleep, with a rosebud in her dimpled hand, an expression of peace in her pure face, as a reflection of Heaven. The parents concluded since we were there to have pictures of their other children. A camera had never been seen there before, and a number of

others desired to be taken. We were obliged to stop over until the next day to do the work, and I was sent back to town for more plates and cases, a trip which took me half the night to perform. We took as many as a dozen persons, among whom was a bluff old fellow named Shaw. We took him and his wife, *Mehitable*. Mrs. Shaw died suddenly a few weeks afterward. Mr. Shaw came into our studio his next visit to town, seeming much bereaved. He expressed himself as "very thankful that he had gotten the picture; it was a blessed comfort to him," he said.

A few months later he came again, this time accompanied by a young, bashful-acting girl, who looked both happy and embarrassed. Mr. Shaw said, "We want our pictures taken, both together, me a holding her hand." Continuing, he said, "This is a fresh one. She's my neighbor's daughter. Ain't she pretty?" And he pinched her cheek in a fondling way. As though his mind was recalling the past he said, "*Mehitable* was a powerful good woman. She's been gone now nigh onto a year, and I got lonesome"—and in the blush of his honeymoon he called up a little sigh, then said, "Come on, sis," and together they went romping down the stairs like a pair of happy children.

And now came into our village a rival daguerreotypist, Professor Bartholomew, and he looked dangerous. He was past middle life, a man of polished manners and fashionable dress. He wore a loose overcoat with fur collar and cuffs, great frogs of braid were stitched upon both sides of the coat as decorations, into which the buttons of the opposite side could be fastened. It was a "double breaster" and either buttoned or unbuttoned presented a stunning effect and carried terror to me. I had a fear of this man of distinguished appearance, who looked like a *real professor*. He had been a teacher of penmanship in a large city and acquired there his superb style, while I was a mere boy, naturally timid, and destitute of a fine showing. That overcoat was a nightmare to me. How could I cope with such a man and such a coat! When



Negative by Dr. F. B. Noyes,

Chicago.

PORTRAIT OF A BOY.

I came to see his work my fear diminished, for even to my inexperienced eye it was clearly inferior.

Professor Brightly kept me cheered with praises and I was sanguine, yet always eager for more instructions. He was touring the smaller towns and I was left much alone, and availed myself of chances for more knowledge. When I found a man who had a superior point in his work I secured it. In the first two years of my practice I repeatedly paid for methods and processes from those in advance of me, considering it better policy than digging it out myself, for the present use and advantage had a real value. A man named Lawyer, who had been operator for Meade Brothers,

in New York city, showed me work of such excellence that I employed him to stop and teach me. Mr. Lawyer had a hobby. It was a *moist buff*, his theory being that moisture in a buff for polishing plates gave a deeper and richer polish than could otherwise be attained, and the deeply polished plate gave a finer image. Under his instructions I had a number of buffs and kept one or more down cellar when not in use, and changed them as required. The little moisture absorbed by the buckskin from the damp atmosphere did give a fine polish and the plates so polished gave fine pictures. I thought his instructions good and was well pleased that I had employed him.

ARTISTIC LANDSCAPE PHOTOGRAPHY.*

BY JOHN A. HODGES, F.R.P.S.

CHAPTER XII.

PRINTING, MOUNTING, ETC. — CONCLUSION.

The space originally allotted to me by our most worthy editor is almost exhausted, and perhaps I can not more fitly bring these notes to a conclusion than by a brief reference to *printing methods*. Whatever may be his limitations in other directions the photographer has here a wide range of choice, and by a careful selection of his process he may obtain almost any desired effect so far as the color of the photograph and the texture of the surface upon which it is printed will exert an influence for good or ill upon it.

I often think that in this respect photographers do not avail themselves, so far as they might, of the opportunities which the variety and excellence of the various printing processes of the present day afford. I consider that the photographer who earnestly desires to succeed in producing pictorial photographs should possess sufficient technical knowledge to successfully work all the better known printing methods, including platinum, silver, carbon and bromide.

Of the relative merits of these it is difficult to speak. Platinum and carbon have an undoubted advantage over the others in point of permanence. Printed-out silver prints in the main are more or less fugitive, though bromide, which is of course also a silver process, though produced by development, when properly treated, namely, thoroughly fixed and washed, appears to be for all reasonable purposes fairly permanent.

This raises the moot point: Should the artistic photographer use only those printing methods which are recognized as permanent? It is of course desirable that any artistic production, be it only a photograph, should possess the quality of permanence, and if the intention be to offer it for sale the desirability of its possessing such an attribute is all the greater.

The three processes, platinum, carbon and bromide, will, I think, afford the art student as much scope for obtaining variety of effect as he will, speaking generally, need. It is not my intention to discuss the rival merits of these processes. A full mastery of the technical difficulties of working them should be obtained. As to which should be adopted, and when, is matter for individual observation and judgment. Be it remembered that art is independent of the method by which it is expressed, and this is as true of photography as of any other phase of graphic art. As experience increases and judgment grows, the ideal will manifest itself intuitively that a particular effect will be most readily gained by resorting to a particular process. Until that time arrives trial prints should be made by different processes, and these should be submitted to a careful and critical consideration, with a view to determining which particular one most perfectly expresses the idea, or conception, in the mind of its producer.

When we have succeeded in producing a print which more or less gives expression to the sentiment we desire to convey, we may well consider whether it is capable of further improvement. It will sometimes be found, despite all our care in choosing the point of view and in selecting a lens to give us just the angle we sought to include on the ground glass of our camera, that we have, notwithstanding, taken in a great deal of unnecessary subject. Here the judicious use of the trimming knife will stand us in good stead, and we may often with advantage use it with an unsparing hand upon what we hoped to regard as a finished picture. The tendency of the lens is always to include too much, and it is often not until we have actually made our print that we can form an accurate judgment in the matter. The conventional stock sizes of photographic plates are usually too square for the majority of landscape subjects, but no rules can be laid down for determining what proportions should be adopted, because what might be suitable for one partic-

* Copyright, 1900, by F. Dundas Todd.

ular subject would probably be unsuitable for another; good taste alone must be the guide. While I warn you against conventionality in such matters I would

may be so termed — has again appeared in America, and may its existence there be as short-lived as it was here.

A useful device for assisting in de-



Negative by F. B. Noyes,

BEDTIME STORIES.

Chicago.

equally warn you against eccentricity. A few years back we saw in this country a great deal of eccentricity in so-called artistic photography, but, happily, like all fads, it soon faded into obscurity. Recently the disease — if it

ciding upon the best proportions for a photograph may be made by cutting out two L-shaped pieces of stout card, one arm of each being longer than the other. These can be placed upon the print and moved about until the best

result is obtained. The trimming knife can then be allowed to do its work with certainty and decision.

Perhaps a few words upon mounting and framing may not be without value when the effect for good or evil they have upon the photograph is realized. Many an artistically pleasing photograph is ruined by an unsuitable mount or frame, or perhaps by both, and too much care and attention can not be bestowed upon the selection of either.

For some time past it has been customary to use broad moldings for the frames of photographs, and to dispense with mounts. Just recently, however, there appears to be a recrudescence in favor of large mounts and narrow frames. Both methods are effective when not carried to extremes. The use of very broad, heavy frames, or of very large mounts is to be deprecated and avoided. In this country mounts made to imitate the plate mark of an engraving are popular with many people, but we object to them because they are a sham. A photograph is not printed from a metal plate, nor does the negative leave its impress upon the sensitive paper; moreover, it has sufficient beauty of its own without needing enhancement by causing it to clumsily imitate the appearance of a steel engraving. A plain mount of suitable tone, or tint, to harmonize or contrast with the photograph placed upon it, will always look well, and anything in the nature of further embellishment will generally detract from rather than improve the ultimate result. The color of the mount is all important; the whites and drabs and chocolates and bronze-greens offered by the store dealers should be avoided, for they will rarely produce a pleasing and reposeful effect. For all-round purposes there is probably nothing to surpass brown paper; but it must be of the right color, and unless you have used it for this purpose, reader, you will probably not be aware what a variety of color and texture brown paper alone will afford. Do not, by the way, allow the mount to be disproportionately large as compared with the size of the photograph. If the relative

areas be as three to one the effect will generally be good, though of course no arbitrary rule can be laid down. It is considered "good art" in certain quarters just now to place the print in one corner of the mount, or at one side—in fact, anywhere but in the center, but I trust my readers will not allow themselves to be influenced by such eccentric examples. In a word, and as a golden rule in endeavoring to form a judgment in these final but important details, always bear in mind that *simplicity and unobtrusiveness* are the best evidences of refinement and good taste.

My task is now finished. Our worthy editor tells me that these short chats have been of some assistance to many American workers. If this be so my object will have been attained and I shall consider myself amply rewarded for my trouble. The work has been a pleasure, and in talking of my beloved art to my fellow workers in America I feel that I have made many new friends whose friendship will not be the less sincere because we are personally unknown to each other.

THE NEW COVER.

CHICAGO, Jan. 10, 1901.

F. Dundas Todd, Tribune. building,
Chicago:

DEAR SIR,—Your January number of THE PHOTO-BEACON is at hand, and we are surprised that you would overlook a very serious fault in getting it out. Your tripod will be knocked off the cover if you don't attach a stay to it. The stay will keep the legs from slipping apart, which they are liable to do standing up there on air if you don't attend to it at once. We will send you a stay tomorrow, so you can attach it.

Yours,

THE MELLER MFG. & PUB. CO.

[If all our readers feel like flinging as good things as a Mellen Pocket Tripod stay at the new cover, we will be glad to hear from every one of them.—
ED.]

The Photo-Beacon "Exposure Tables" are guaranteed to be correct. Price, 25 cents.

PHOTOGRAPHIC PRINTING PROCESSES.*

BY LOUIS H. HOYT.

CHAPTER II.

BLUE-PRINTS.

The simplest method of making a print from a negative is undoubtedly that commonly known as the blue-print process. Very artistic effects may be

The paper is prepared by coating with a combination of the salts of iron and potassium. When dry the printing surface is of a lemon yellow color. The salts, if unaffected by light, are very soluble in water. Subjected to the chemical action of light, or when printing, they change their nature, becoming blue in color and insoluble. It will be readily understood from this that every



Negative by Wm. J. Meyer,

WINTER.

Chicago.

produced, and a few prints on this paper aid materially in making any collection of photographs varied and interesting. The washed-out, faded-looking failures made by some workers who consider the process too simple to study, should not be allowed to influence one to think slightly of this paper. Give it a fair trial. Study its nature and manipulation intelligently, and the result will be a friendly feeling toward the lowly.

precaution must be taken to protect the paper from moisture before use. When purchasing it is policy to accept only that which is packed in sealed tin cans, as the paper which is offered in envelopes, especially if it has been in stock any length of time, seldom gives good results. Fresh paper is always the best.

The printing is done with an ordinary printing-frame. Place the yellow side of the paper next to the film side of the negative, and lay the pad on top of the

* Copyright, 1901, by F. Dundas Todd.

paper. Be sure and dust both the negative and paper and see that the brush and pad are perfectly dry. Print in direct sunlight when possible. Good prints may be made by printing when it is cloudy, or in the shade, but sunlight is better unless the negative is very thin.

Examine the progress of printing occasionally, by opening one section of the back and turning the loose end of the paper so that the face may be seen.

The image will appear slowly and will usually be of a grayish blue color. Carry the printing to a point where the shadows will appear of a gray bronze color and the half-tones be fairly outlined. The beginner should make one or two prints, closely observing the color and depth of the image, and wash them immediately in plain water. It will be an easy matter after this little experience to correctly judge the depth of printing. If these test prints are lacking in detail and too light, the rest of the prints must be carried deeper. If they are too dark, do not print so far the next time.

I want to say to the beginner right here, and it applies to all photographic processes, that you must learn to observe and remember what you see. All that a writer can put on paper is merely a starter for you. Suppose you were learning to coast and some one more experienced explained to you that if you want to steer your sled to the right you should dig in your right toe, and if to the left, use the left one. He gives you a good shove and away you go. Half way down the hill you find you are headed too far to the left, and forgetting or ignoring all advice, you put the left toe down; where do you land? In the ditch. You will find some mighty deep ditches along this photographic hill, and you want to keep your eyes open and your wits about you, or you will get many a spill, and in company with a certain congressman there will be times when you do not know just where you "are at." If your memory is poor, get yourself a notebook and make a memorandum of everything. If it is your intention to press the button and depend

on others for the rest, you are going to make a failure of it.

It is better to print too dark rather than too light, as a dark print, if not excessively overexposed, can be reduced, while the light prints are difficult to improve.

After the printing is done the prints are washed in plain water, in order to dissolve and wash away the salts which have not been affected by light.

It is advisable not to have the water too cold. Use it warm enough so that the fingers will not become chilled. Do not touch the back of the print with damp fingers, or the moisture may penetrate through to the sensitive surface and cause dark spots. Dry the fingers when taking hold of a fresh print and plunge it into the water quickly, taking care that it is wholly and evenly covered and that there are no air bubbles on the surface. Be generous with the quantity of water used.

Immediately after placing the print in the water an amber-colored liquid will appear to rise from it. This is the unaltered salts dissolving and washing away. Allow the prints to remain in this bath for about a minute and then transfer to a second tray of water for several minutes. Then place in a third tray or dish, preferably with running water, and wash for fifteen minutes. This completes the ordinary method of finishing the prints and they are then ready for mounting or drying.

A very deep rich blue may be obtained by printing rather deep and adding about ten drops of stronger ammonia to each two quarts of the first wash water. Use great care not to have the ammonia water too strong, or the prints will either bleach or turn to a gray color before they can be removed. Ordinary household ammonia will answer, but more must be used, as it is generally very weak. Experiment a trifle and you will get it. Use enough ammonia to give the deep blue, without bleaching.

When the color wanted is obtained, which should be in about a minute, place the print in a solution of one-half ounce of alum to the quart of water, and allow to remain for four or five minutes, or

until thoroughly cleared, and then wash for fifteen minutes in clear water.

Give the prints in all cases the full twenty minutes washing. If they wash out too light, throw them away. They

by using ammonium in the first wash water, as given above, only a trifle stronger, followed by the alum bath and washing. There are other methods of reducing dark prints, but if they are so



Negative by R. C. McLean,

Chicago.

THEIR HONEYMOON.

are underprinted and new ones should be made. It is possible to strengthen a weak print, but the necessary chemicals are seldom at hand and the process is uncertain.

Prints which are too dark may be reduced, if not too badly overexposed,

overprinted that they require heroic treatment, it is better to throw them away, as they will undoubtedly prove unsatisfactory after being doctored.

Probably the greatest cause of failure to make good prints on this paper (especially by the beginner in photog-

raphy) is using a negative which is too thin or lacking in contrast. Flat, over-timed negatives, or those which are thin and weak, either from undertime or insufficient development, will not give good prints. The negative should be fairly strong and contrasting, with enough detail in the shadows to prevent the paper printing blocky in these places.

The intention is not to give any information of points in this article but what are thoroughly practical. There is, however, a little matter concerning blue-print paper which can be touched upon that, though rather uncertain, is very interesting. By toning the print after it is finished in the usual manner, you can produce some very fine results, and often puzzle your photographic friends as to just what kind of prints they are. It may also puzzle you to produce exactly the same result again, but the work is interesting and should be experimented with.

One authority (?) states that by washing the print in a ten per cent solution of ammonia and water until the image is nearly or quite bleached out, and then placed in a saturated solution of tannic or gallic acid until toned to color wanted, followed by thorough washing, will tone it black. Another authority gives the same formulæ and treatment to produce brown tones. I have succeeded in getting both, together with several others.

If you wish to get a green tone make a saturated solution of proto-sulphate of iron (any tintype man has it), with enough sulphuric acid added to turn blue litmus paper red. For use add an equal quantity of water and allow the print to tone to the color wanted, after which it must be washed thoroughly.

The prints may be dried perfectly flat between blotters. It is generally necessary to change them to dry ones until all the moisture is absorbed. To mount on cards, take the prints from the last wash water, and lay them face down (one on top of the other, irregularly) on a piece of glass and squeeze out all the surplus water with the rubber roller. Apply the paste to the back of the top print and lift it with a hatpin or any

pointed article and place it in position on the mount. Place a piece of blotting paper on the face of it and roll into contact with the mount with the roller. Sponge away any excess of paste which might be pressed out around the edges. A formula for making a paste that will keep in condition and also stick will be given in another article.

Blue-prints may be spotted with water-colors or paints, or by scraping a little dust from the lead of a blue pencil and mixing it with a drop of gum and applying with a pen or brush.

Use judgment in mounting these prints. A large enough card to allow for generous margins gives the best appearance. Plain gray cards with no gloss look well. The ordinary cheap mount with embossed borders never produces a good effect.

ELECTRIC DARKROOM LAMP.

PORT GAMBLE, WASH., Dec. 17, 1900.

I made the small electric battery for lighting a darkroom lamp which was described in your May number, and although I used four cells, with carbons and zincs measuring 2 by 4 inches, instead of three cells, with carbons and zincs $1\frac{1}{2}$ by $3\frac{1}{4}$, as was specified in THE PHOTO-BEACON, I got no light. I had experimented with electricity quite a good deal before I read the article in your magazine, so it did not take me long to find out that the trouble was in my charging solution. I replaced the Federal salt solution with a solution of bichromate of soda. This solution is made by dissolving bichromate of soda in warm water to saturation, allowing it to cool, then slowly adding commercial sulphuric acid to the amount of one-fifth of the volume of the bichromate solution.

The lamp which I use is a two candle-power lamp and I find it a very desirable contrivance to have in a darkroom.

If you have had any inquiries from any of your subscribers who have tried the battery and could not get it to go, you can give them the formula for the bichromate solution.

W. A. THOMPSON.

STEREOGRAPHY IN MEDICINE.

Until recently I was under the impression that I had been the first in the Edinburgh School to apply and advocate the use of the stereoscope in surgery and medicine. But alas, I should have remembered the old maxim, "There is nothing new under the sun." I showed some stereo plates of anatomical subjects upon which I had been engaged for Mr. Stiles to Professor Chiene. He looked at them, admired them, and said nothing further; but a few days afterward he told me that on going home he had looked through his famous collection of Goodsir relics, and there discovered a dozen stereoscopic photos of medical subjects which must have been taken prior to 1867, the year of Professor Goodsir's death. This being so, I can not imagine how the idea did not at once lead to its general use in the profession. Had his results been published, and had more been made of them, I am certain that at the present day every medical photograph would be looked at through the medium of the stereoscope. I have only to pass round a few such photos, and to ask you to be good enough to look at them, first with the *unaided eye*, and then by means of the *stereoscope*. No comparison is possible. I need say nothing further—the admitted confusion of the ordinary scientific photograph is at once resolved, and chaos gives place to cosmos. Every department of medicine and surgery would be the gainer. The student of anatomy or surgery, pathology or medicine, can not take his dissection or his case home with him for his evening reading. His work, as far as these are concerned, is a mere mechanical effort of memory, while a suitable series of stereograms is a not unworthy substitute, while the original has already been thoroughly studied in the laboratory or the classroom. Ere long, and it shall not be for lack of its advocacy on my part, it is my hope to see every lecturer making use of, and no practical class complete without the presence of this invaluable method of demonstration, infinitely superior in most cases to the diagrams and draw-

ings at present in use, and certainly not of less value than the optical lantern, which is now such an indispensable accessory of teaching in almost all its branches. W. G. C. DICKSON, B.Sc.



Neg. by H. A. Stempel,

Chicago.

EVENING.

OUR LONDON LETTER.

One of the most interesting features of the last exhibition of the Royal Photographic Society was the large number of photographs contributed by American photographers. The impression prevailed, we understand, that this influx of American work was due to the exertions of Mr. Holland Day, and that he was responsible for the collection of photographs submitted. This notion, of course, was quite erroneous, the various works having come direct from the individual workers. Whether the fact of the exhibition being held for the first time in the finest thoroughfare in London was or was not the inducement must perforce remain a matter of conjecture, but whatever the reason, the American work formed a striking feature of the exhibition, and conveyed many an object lesson to thoughtful workers here.

The collection of American pictorial work recently exhibited at the Royal Photographic Society's rooms, in Russell square, although not so representative or comprehensive in character as the statement in the catalogue would have had us believe, was in many ways a remarkable show.

The inclusion of some works illustrative of sacred subjects, and also some examples of rampant impressionism, aroused no small measure of hostile criticism in the English photographic press, with the unfortunate result that attention was diverted from much of the work that certainly ranked among the very best that has been produced by photographic agency.

One interesting feature of the exhibition was the manner in which the exhibits were displayed; that is to say, instead of being surrounded by huge timber structures, marvels of the art of joinery, yclept frames, they were simply displayed as *passe-partouts*. Judging by the comments made in the rooms this appeared to be a novel method of framing to many present, and some surprise was expressed when older hands spoke of having employed the method in the early forties.

Old or new, we commend the *passe-*

partout system to the serious attention of our readers, for when the mount is of a color that harmonizes with the print a more effective method of treatment could not well be conceived. It possesses, moreover, the advantage of being economical, a matter well worthy of consideration where a number of photographs have to be displayed.

The *modus operandi* of mounting a *la passe-partout* is simplicity itself, and as it may be new to many of the readers of THE PHOTO-BEACON we append brief directions.

The photograph is first mounted on a mount which may be either plain or cut out; a piece of glass the same size as the mount is superimposed, a piece of thick cardboard forming the backing. Before putting these together a narrow slit half an inch wide is cut near each edge of the cardboard where the rings of an ordinary frame would be. In these short pieces of half-inch tape are to be passed, the ends being turned in and glued to the inside of the backboard, leaving two loops of tape about two inches long by which to hang the completed picture in lieu of hooks. When the glue is dry, backboard, mounted photograph and glass are bound together with strips of strong paper, *a la lantern-slide* fashion, and presto, the thing is done. Try it, my friends, and I am sure you will be pleased with the result.

I do not know whether the tabloid form of putting up chemicals for photographic use is as popular in the States as it is here. Probably it is, but if not it deserves to be. In the old country, at any rate, Messrs. Borroughs, Welcome & Co. have done as much as any one to popularize the system, for not only do they offer nearly every chemical used in photography in this convenient form, but even more important, one can always depend upon its quality. One of their most recent introductions is the mercury-iodide tabloid for intensification. This method of intensification is perhaps the most simple of any. It is a "one solution" process, all that is necessary being to dissolve a tabloid in one ounce of water,



Negative by J. F. Palmer,

AUTUMN LANDSCAPE.

Chicago.

and immerse the previously soaked negative in the solution until sufficient density has been attained.

I do not know whether the newer types of lenses constructed to give flatness of field and freedom from astigmatism are as much in demand in America as they are here. In England they are rapidly superseding the older forms of construction, and I note that

many of the leading optical houses have ceased to catalogue some of the older types, which apparently they regard as superseded by the more modern instruments.

Speaking recently to the manager of a London firm which does a very large trade in the sale of secondhand lenses, I was informed that the demand for rapid rectilinears had already suffered



Negative by Dr. C. H. Parker,

SERIOUS AGE AND FRIVOLOUS YOUTH.

Chicago.

a considerable diminution. Those who contemplate buying lenses of the older type should bear this fact in mind, for in course of time such instruments, although emanating from the best optical houses, will become for commercial purposes practically obsolete.

Whether finality in the direction of perfection has yet been reached it would indeed be hazardous to express an opinion upon, but be that as it may, new constructions are rapidly succeeding each other and being placed upon the market. Notable among these is the "Unar," introduced by the German firm of Ziess, but manufactured under license in this country by Ross, Ltd. But slightly less rapid than the "Planar," it has all the advantages of that wonderful objective, but is cheaper and not so heavy. With a working aperture of $f-4$, the image over an angle of 40 degrees is flat and anastigmatic, and for instantaneous work of the most rapid character a more suitable instrument could not be selected.

Some editorial changes have occurred in English photographic journalism with the advent of the New Year, Mr. E. J. Wall having relinquished the editorial chair of the *Photographic News* to Mr. P. R. Salmon, whose chatty, helpful articles are known to readers on both sides of the pond. Mr. Wall, who always had a strong leaning to the scientific side of photography, has accepted an appointment as scientific adviser and expert to the European Blair Camera & Film Company, which has developed an enormous business in films for cinematograph work.

JOHN A. HODGES.

LETTERS TO THE EDITOR.

THE PRIZE PICTURE IN JAN. ISSUE.

BURLINGTON, VT., Jan. 11, 1901.
Mr. F. Dundas Todd, Chicago, Ill.:

MY DEAR SIR,—I have been a subscriber and faithful peruser of THE PHOTO-BEACON for the past two or three years. I am frank to confess that I have learned more of photography from its pages than I ever

thought it possible to know without actual experience with a competent instructor.

I have never bothered you, Mr. Editor, with any great number of questions. I do wish, however, to put in my oar right here.

Where in the name of all that's photographic did you ever advocate the process of making blurred pictures? In the January number of THE PHOTO-BEACON you publish as prize picture, "An Autumn Morning." Exposure made at four o'clock in the afternoon. May I ask why the picture was called "An Autumn Morning," instead of "An Autumn Afternoon," unless the finished print proved to be entirely different from what was intended at the time the exposure was made?

Do you seriously believe that Mr. James Patrick, whose ability and good judgment none care to question, would turn out a print and call it worth saving, to say nothing of entering it in competition for a prize, that was so blurred as to be tiresome to the eye?

It would not greatly tax any one's powers of perception to see that the subject has merit, both as to composition and lighting, but why in Heaven's name isn't it in focus?

I don't think I am wholly destitute of all appreciation of what is beautiful, neither do I pose as a critic, but I do think I am asking questions that have puzzled wiser heads than mine.

If, however, blurred pictures, or pictures out of focus are the proper thing, and pictures that show us nature as the eye sees it are no longer to be considered as worthy subjects, then will you do me the favor to say that a first-class 5 by 7 outfit, King camera, Bausch & Lomb Universal lens, is for sale by

S. L. KETCHAM,
Burlington, Vermont.

[We acknowledge the corn about the time of day, having by mistake taken the wrong particulars from Mr. Wilde's letter. Regarding the other matter, the judges selected the picture as the best in the competition, and we had nothing to do with the case. Fuzzy or not, we think, however, that it is a beauty.]



Negative by Dr. Dellefsen,

Chicago.

A PEBBLE ON THE BEACH.



Negative by John H. Pratt,

Chicago.

FIRST PRIZE, COMPETITION No. 32.

COPYRIGHT.

ANACONDA, Montana, Dec. 27, 1900.
Editor of THE PHOTO-BEACON:

I was much interested in the article on copyright which appeared in a recent issue of THE PHOTO-BEACON. This is a subject which, in my opinion, should interest every amateur in the land, as well as the professional. Not an amateur but may occasionally secure a valuable negative, in which case his property should be protected. It seems to me that common sense teaches that if the writer of a book or other literary production is entitled to all the benefits of his labor or creation, so is the photographer. I trust you will continue to agitate this subject until justice is done. Will you kindly inform your readers what protection, if any, we have under the present law?

Very truly yours,
J. F. SHOEMAKER.

FILING NEGATIVES.

CLEVELAND, OHIO, Dec. 19, 1900.
Editor of THE PHOTO-BEACON:

DEAR SIR,—This summer I decided that it would be necessary to have some convenient way of preserving my negatives, and the data and the accompanying envelope and slip tell the story.

HOLDER

Date 19....
Time M.....
Light
Stop
Expos
Plate
What

I had a rubber stamp made (cost 50 cents) and in a few moments stamped enough slips to last me several months. A small supply of these is always kept in my pocket ready for use. On this slip, after the word "Holder," is marked the number of the plateholder containing the plate just exposed and then follow the rest of the items. I always fill out this blank immediately after making the exposure. In this way I know in

which holder the plate is that I wish to develop "before breakfast."

In copying the record on the envelope (which exactly fits a 4 by 5 plate) after the word "Holder" I mark the number this negative will occupy in the collection and of course is the number following the title or short description in the index.

This method has been very satisfactory to me and with a little retouching on your part would no doubt be of some service to many of our fellow sufferers. The envelopes are cheap; the stamp can be used by any number of persons; the time used in filling in the items is not worth considering and the result is quite satisfactory.

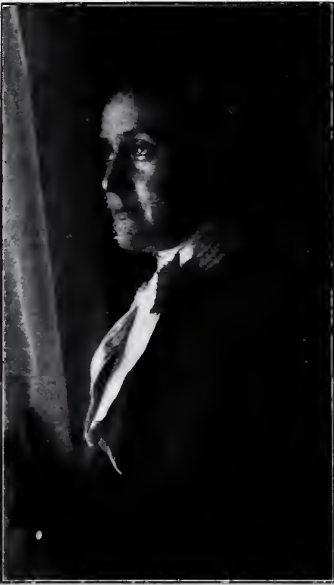
Yours,
J. HILLENBRAND.

I get each issue of THE PHOTO-BEACON at the news depot and consider it as good as the best. It was a little late this month—don't let it happen again.—J. H.

THE VALUE OF "KNOW HOW."

ALMA, COLO., Nov. 20, 1900.
Editor of the PHOTO-BEACON:

DEAR SIR,—I feel that I must express my thanks to you for the full information to be gained, in lines photographic, in your little books and Exposure Tables. I live in a little out-of-the-way mining camp in the heart of the Rocky Mountains, and when I sent for my camera, developing outfit, and "full instructions" said to accompany same, I felt that I could easily learn to take photographs. A little slip of paper, advertising your publications, came with the camera—but I tossed it aside and waded into the "full instructions." They were so full of vague suggestions that it took me a half day to open my camera, and longer still to get it shut again. After a full week's labor, I got the mechanism under control and started happily forth to take a picture. Following the "full instructions," I took ten, varying from five to fifteen seconds exposure in bright sunlight and brilliant atmosphere found only at an altitude two miles above sea level! One by one, I developed—oh, so carefully—getting ten blackened plates, with



Neg. by John S. Driver, Chicago.

WAITING.

the shadow of an image which could not be induced to print. Sadly I put the things away and ordered "First Step" and the "Exposure Tables." They came and on August 6 I got my first picture. Not a very good one, but it looked beautiful to me. My troubles were not ended, but they began to *teach me something*. Every exposure and development since has had its lesson; if it is not apparent at first, a fresh reading of the series of your books (which I got as soon as possible) shows me where mistakes lie.

Two weeks from the day I got my first picture I got negatives from which I have sold many prints. The first month's work more than paid for my books and THE PHOTO-BEACON for a year, and I find myself working into a business which takes more than my spare time, so I sign myself,

Gratefully yours,
MRS. W. H. POWLESS.

THE New York Photographic Company has something to say about developers and reducers, in the advertising pages, that may interest you.

REPORT ON EASTMAN'S SEPIA PAPER.

(Read before the Photographic Society of Philadelphia.)

The sepia paper manufactured by the Eastman Company, a sample of which has very kindly been sent me by the makers, possesses many advantages which will be appreciated by the average amateur as well as the more advanced worker. The tones obtained are pleasing; it is very simple in manipulation and is *cheap*, the price being about the same as for blue-print paper. It is almost a "printing-out paper," as the image is quite distinct before development. It should be slightly, but only slightly, underprinted, as it dries a little darker. The paper prints somewhat more quickly than platinum. Development is as with blue-print paper, with water, which washes out the unaffected salt. Three changes of water



Neg. by Frank Snyder,

Chicago.

SAD MEMORIES.

will suffice. The print becomes yellow in the water and paler as the sensitive salts are washed out. The regular proceeding is now to *tone* the print in weak hypo solution. It is not, however, necessary to do this, and various modifications may be employed, as hereafter described.

The instructions accompanying the paper say wash in two or three changes of water; then immerse in hypo solution $1\frac{1}{2}$ grains to the ounce. I believe a still weaker solution gives more control and therefore better results. In the hypo bath the print changes to a pinkish brown, becoming eventually a rich chocolate-brown. "The tone depends upon the time in the hypo bath," i. e., from "pink" brown to dark brown. A very pleasing result for some things is obtained by permitting the half-tones to remain pinkish while the shadows become brown. Wash fifteen minutes.

The color may be varied in several ways. A print was made as usual (except that in this case it was accidentally overprinted, which did not interfere with the color). After washing in water it was placed in weak potassium iodide solution (1 grain to the ounce) and then washed. The result was an indescribable but rather pleasing "orange-brown."

Print number two, also overprinted (intentionally), was washed in water, placed for a few minutes (until reduced to proper density) in *weak* mercuric chloride solution, then in potassium iodide solution, and finally washed. Result, a somewhat cold, gray sepia.

Number three was placed *without* washing in the mercuric chloride bath, from this to the potassium iodide, then into hypo and washed. Result, a warm rich true sepia.

Number four was much overprinted, washed in the usual way, and then placed in very weak permanganate of potash solution. This reduces the print and at the same time changes the color to a cold "coffee" brown. The print was afterward placed in the hypo bath. Practically no change was noticed; wash as usual.

Number five was washed — placed in

solution of ammonium sulphocyanide, 2 grains to the ounce. It remained in this about five minutes and was then passed into a copper chloride solution, about $2\frac{1}{2}$ grains to the ounce. Remained ten minutes, then washed. Result, a rich copper-red. The print bleaches somewhat in the copper solution.

Print number six was treated as number five, except without first washing in water, with the result that the image entirely disappeared, leaving the paper apparently as before printing.

Number seven was overtimed, developed as number one (i. e., washed, toned in potassium iodide), washed, and then locally reduced with a brush and potassium permanganate.

These few crude attempts will show some of the possibilities of the paper, although the regular method is possibly the best, as it certainly is as simple as any one can desire. The paper is best suited to broad effects, the rough surface interfering with the reproduction of much fine detail. It gives, how-



Negative by Dr. Detlefsen,

Chicago.

CHARCOAL EFFECT BY PURE PHOTOGRAPHY.

ever, more detail than does blue-print paper, with which it compares in price and simplicity of manipulation.

A CAMERA MEN'S BANQUET.

A pleasing event took place on Saturday evening, December 29, 1900, at the Livingston Hotel, Rochester, New

York, the occasion being a banquet given by H. B. Carlton, general manager of the Rochester Optical & Camera Company, to about one hundred of his principal employes; the entire office and traveling force, together with the superintendents and some of the shipping clerks and foremen enjoying their manager's hospitality.

During the holidays every employe of Mr. Carlton was remembered in some way, either receiving a dollar, a turkey or a seat at the banquet.

Mr. H. B. Carlton was appointed



Negative by A. R. Gibson,

A SHADY WALK.

Chicago.

At 7:30 every one had arrived, and having satisfied the inner man from the

manager of the Rochester Optical & Camera Company about two months ago, and under his management it is confidently expected that the business will increase and the stock be as gilt-edged an investment as was that of the old Rochester Camera & Supply Company (now absorbed by the Rochester Optical & Camera Company), of which Mr. Carlton was the general manager.

The past year has been a poor one for

all manufacturers who make photographic apparatus only, but one of the principal reasons can be distinctly traced to the uncertainty of the outcome of the national election, as was the case four years ago. The Rochester Optical &

uance of the high-grade apparatus for which this company and its predecessors have been noted, and prospective purchasers will do well to be on the lookout for the product of Premos, Pocos, Cyclones and accessories which this



Negative by G. F. Snyder,

Chicago.

A WOODLAND PATH.

Camera Company has just paid its semi-annual dividend of $3\frac{1}{2}$ per cent, thus substantially putting to naught the prediction of some of its rivals, who have taken every opportunity to say that it was about to write its epitaph.

The management promises a contin-

company will place before them this year.

If you are interested in pure chemicals read the letter by Falk in the M. A. Seed Dry Plate Co's advertisement this month.

EDITORIAL TABLE.

"INS AND OUTS OF BUFFALO" is the title of a rather interesting book issued by A. B. Floyd, in anticipation of the Pan-American Exposition to be held in Buffalo during the summer months of this year. It should be found useful to those purposing to visit the exposition.

"LOCKE'S PLATINUM DOG HEADS" is the title of a handsome book issued by W. O. Locke, Station H, Cincinnati, Ohio, to advertise the fact that he has for sale a very large number of platinum photographs of dog's heads, all made direct from life. The catalogue is an interesting one, beautifully printed and well worth the 35 cents asked for it.

Most of our readers have heard of the famous big camera used by Mr. George R. Lawrence to photograph the magnificent train "The Alton Limited," that is run between Chicago and St. Louis by the Chicago & Alton Railway. The plate used was 8 feet in length and $4\frac{1}{2}$ feet in width. Now such a plate needs a rather respectably sized camera, and we fancy many of our readers would like to know all about. If they live along the Alton all they need do is to step in to the nearest depot and ask for a copy of "The Largest Photograph in the World," and they will get a book that will certainly interest them. If personal application be not possible, then send a 2-cent stamp to George J. Charlton, general passenger agent, Chicago & Alton Railway, Chicago, and a copy will be sent free.



CONDUCTED BY FRANK H. BALL AND GEORGE J. FOWLER.

INSTRUCTORS OF MANUAL TRAINING, CHICAGO.

DIRECTIONS FOR USING SANDPAPER.

There is a right way to use sandpaper, just the same as any other appliance.

Tear off a piece about two inches wide from the sheet, by placing it over the sharp edge of the bench or a board. Stretch this piece tightly across the under face of a small scrap of board and turn up around the edges of the block. Hold the paper with the thumb and fingers on the edges of the block, keeping it stretched tight across the under side. This will make the sandpaper act more like a file, inasmuch as it has a flat surface to rest on. If the wood is very rough or dirty the stroke may be across the grain, but this will show scratches which must be removed by having the stroke run in the same direction as the grain of the wood. Great care should be used in sand-

papering that the sharp corners are not rounded off, and these can not be saved unless the sandpaper is used on a block. The sharp corners can be made more sharp if the block be held at an angle of about forty-five degrees and then moved in the direction of the grain.

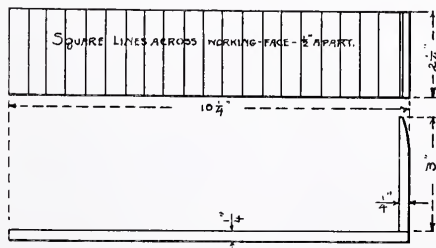


FIG. 4

Put on considerable pressure and when the sharpness of the paper is worn off, move it along further on the block, or

take a fresh piece. Sandpaper is never classed as a cutting tool and if the wood is rough it should be smoothed with a plane and then sandpapered to remove all tool marks and dirt. For real nice

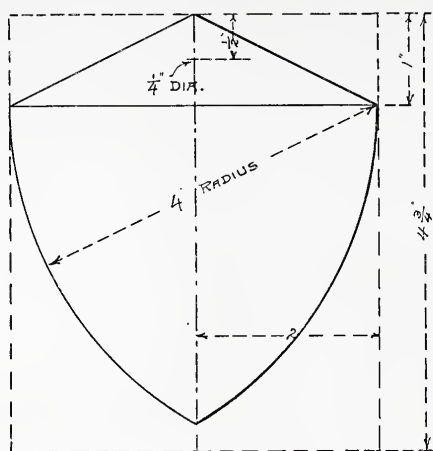


FIG. 5.

work use very fine sandpaper, number 00, but a coarser paper may be used first.

MATCH SCRATCHER.

Fig. 5 shows a simple match scratcher and is made from a piece of stock $\frac{1}{4}$ by $4\frac{1}{2}$ by 5.

- 1.—Plane a working edge.
- 2.—Draw center line two inches from the working edge.
- 3.—Square the line across the working face, one inch from the top end and draw the outline, using a compass for the curves.
- 4.—Place the stock on the benchhook and with the backsaw saw to the diagonal lines.
- 5.—In same manner saw as nearly to curved lines as possible without touching them, sawing several times.
- 6.—Cut to curved lines by paring with a chisel—see special instructions.
- 7.—Locate and bore the hole.
- 8.—Sandpaper clean all over and glue on a piece of No. 1 sandpaper, large enough to project a trifle beyond the edges, and after it is dry, lay it face down on a block and trim off the projecting edges of the sandpaper with a knife.

VERTICAL PARING WITH A CHISEL.

Lay the piece on a scrap piece of board to avoid marring the bench.

Hold the chisel in a vertical position in the right hand with the thumb on the end of the handle, the fingers grasped around it. Lean forward until the right shoulder is against the top of the chisel handle, and obtain the necessary pressure by bearing down hard with the right shoulder. The left hand, meanwhile, rests on the piece to hold it still and the forefinger should be grasped around the chisel blade to guide its stroke. The chisel should have its flat side toward the line, and all the cutting should be done with one corner of the blade.

Begin at the point where the board is widest and work toward the end, because with each stroke the board will split in the direction of the grain, beginning from the cutting point of the chisel. Therefore the direction of the grain must be noticed, so that the piece which splits off will be entirely waste wood, altogether outside of the design.

THE PHOTO-BEACON.

AN ILLUSTRATED PHOTOGRAPHIC JOURNAL,
Published Monthly.

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Subscribers advertising secondhand apparatus for sale or exchange, special articles wanted, help or situations wanted, *one insertion free.*

To insure insertion in any particular number, copy for advertisements must be received not later than the 20th of the month preceding.

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THE PHOTO-BEACON COMPANY,

TRIBUNE BUILDING,
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Negative by Dr. F. Detlefsen,

Chicago.

FIRST PRIZE.

THE PHOTO-BEACON.

EDITED BY F. DUNDAS TODD.

Published by the Photo-Beacon Co., 15 Tribune Building, Chicago.
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VOL. XIII.

MARCH, 1901.

No. 3.

FUZZINESS.

The letter from Mr. Ketcham published in last issue has encouraged quite a shoal of readers to send me in letters in support of that gentleman's views. I need scarcely say that I am glad to get them, for every question has at least two sides, and I never yet knew fair and open discussion to hurt anybody or anything, but I do know that burking expression of opinion is injurious to the best interests of the subject that happens to be under consideration and of the individuals interested. When I do happen to have an opinion on any subject it is usually a very decided one and I never hesitate to express it just as freely as I feel like it; but on the other hand, I simply love the man who will hit me just as heavy a whack as he can lay on, for he thereby gets a new idea into my head, which is something that will keep me interested for some little time to come.

Is life worth living? Yes, if you live right; if you don't, it isn't. It is worth living if you get something new to wrestle with, something that will make the minutes all too short, but it is not worth living if we consider our education complete, and want to crystallize just as we are.

Now here is where I part company with the self-called art school of photography in the East. The gloom of life is their theme, my ideal is the joy of it; they despise natural law, my constant effort is to get acquainted with the law behind the fact. We come to know about natural law by its results, and

from the facts we know we are able to propound a working theory, but every addition to our store of facts tends to modify our theory, so we are in a transition state all the time.

This is why free and open discussion is valuable, and why I welcome it. No one man knows it all, each but knows a little, but he may think he does; all the same his views are very valuable, so if he flings what he knows into the common pile and gives his deductions thereon, out of all the material collected a new working theory can be evolved that will lead to more knowledge being acquired.

Mr. Ketcham having expressed the opinions on one phase of pictorial photography so clearly and crisply, it is unnecessary to print any more letters on that side of the question. Mr. Wilde, the maker of the picture in dispute, sends a letter expressing his views, and that I gladly publish, and will gladly welcome further ideas on the subject.

In the seven years I have been editor of THE PHOTO-BEACON I have always stood for the pictorial side of photography, and always had in my mind's eye an ideal journal that I was working to get. The present volume so far has come very near realizing my ideals, and the hundreds of complimentary letters I have received in the past few weeks show I have struck a responsive chord. The literary matter, I need scarcely tell my readers, costs big money, and is only possible with a big circulation. I am not a money grub, so when I urge my

readers to recommend the journal to their friends it is more in their interest than mine, for more money will enable me to go into the market and buy what they want. If they will provide the dollars, I know how to spend them.

F. DUNDAS TODD.

THE JANUARY FIRST PRIZE PICTURE.

141 E. WASHINGTON LANE,

GERMANTOWN,

PHILADELPHIA, PA., Feb. 6, 1901.

Mr. F. Dundas Todd:

DEAR SIR,—In expressing my appreciation of the honor conferred upon me by your judges in the late landscape competition, I would like to thank THE PHOTO-BEACON for its share in the result.

It was entirely through your journal that I first began to find the possibilities of pictorial photography. I had always looked upon my camera as an interesting companion in recording scenes that would remind me of days gone by, but like most artists, those scenes gave me no satisfaction from a pictorial side of the subject.

Perhaps I can best express myself in answering one question put by a correspondent in this month's journal. He asks "if pictures taken as the eye sees them are of no account." Now as I used to take them I did not think the camera gave me what my eyes saw. Then again no two persons see with the same eyes. Take, for instance, the picture in question. I saw the breadth of light and shade, the majestic corn shocks in the foreground, the natural perspective formed by their rows, the aerial perspective given in their diminishing tones and the distance gradually receding, but of sufficient contrast against the morning sky.

Now it was entirely through the articles written and illustrated by Mr. Hodges, in your journal, that I have been able to find a way to convey what my eyes saw to the print. Those articles have shown me the way to make the camera give me a picture, not as *its eye* saw it, but as *mine* saw it.

Perhaps had your correspondent known the months I had studied that

picture, the number of proofs and prints made to get what I wanted, he might have thought that even if it did not come up to his artistic standpoint, at least it was worth saving. The fuzziness which he so complains about is not caused by my picture being out of focus. The original negative had too much of that article for me—in this particular subject I wanted breadth and roundness. I did not want to count how many shocks I could see, so to help me on to this end I simply studied what Mr. Hodges had advised to do in a case like that and followed his instructions in printing.

In closing let me relate an anecdote which I have never forgotten—it was in my art student days. I had been out sketching from nature as a change to working from models and casts. I still see that old English village, with its quaint cottages and thatched roofs, half covered over with moss; how I did work at that thatch and moss, it looked so beautiful. Well, after three days' work I took it with some amount of pride to show my master and to my utter dismay he made me take out all the work which I had considered so beautiful, by throwing broad shadows across the building, with the remark, "Detail may be very fine to show what good eyesight you have got, but next time you go out remember and paint *what you see, not what you know* is there, and above all things remember there is as much beauty in shadow as in light."

So it is all the way. Turner reveled in light, De Went and Rembrandt in shade. One man paints his picture with a sable, another with a hog hair. One photographer may be charmed with detail and use stop 128 and lose atmosphere. Another may strive for breadth and use stop 8 and lose detail. Each may carry his impressions to the extreme, but if he conscientiously endeavors to follow our beloved art by striving to render our ideal, we may not gain the applause of the world, but we gain the reward that art offers to all her faithful disciples. Nature opens up to our perceptions her wonderful and mysterious beauties, and

be it in our walks in city or country, she is always ready with a lavish hand to place before our eyes her charms, and in our humble endeavor to interpret those charms, no matter what our tools are, we must bear in mind they are only a means to the end. We are using them for *our* purpose, as *we* see and feel; so must we translate, it must be *our* mind that plans the picture — *our* eye that sees, not the lens — *our* developer, not the standard formulæ — and last, but not least, *our* power to control this part or accentuate that part until the whole picture is brought into one harmonious whole.

Once more, Mr. Todd, let me thank Mr. Hodges and your worthy self for the benefit you have been to me, and though unknown to each other I like to feel that each of you are friends.

Yours very sincerely,

ARTHUR W. WILDE.

PICTORIAL COMPETITION NO. 33.

As was to be expected, this was a very interesting competition, showing exceeding variety and abandon in the posing. The judges made the following awards:

First Prize — Dr. Detlefsen, 2769 North Lincoln street, Chicago.

Second Prize — H. Richter, Maxwell, Texas.

Third Prize — Emma L. Williams, 10 Eelden street, Hartford, Connecticut.

PARTICULARS OF WINNING PICTURES.

First Prize — Made in November in residence attic. Ordinary R. R. lens, on Seed 26X plate. Exposure, three seconds. Printed on Willis & Clement's Platinotype.

Second Prize — Taken January 6, 1901, at 3 P.M. Cloudy day, light from a high north double window. Plate, Cramer instantaneous isochromatic. Ex-



Negative by William F. Thompson,

New York, N. Y.

WHEN THE SHADOWS ARE LONG.

posture, one second. Printed on Aristoplatino.

Third Prize — Made in ordinary room, on Stanley plate; stop *f* 8. Exposure, three seconds. Printed on Velox paper.

FUTURE COMPETITIONS.

Competition No. 35.—Snow pictures. Closes March 31.

Competition No. 36.—Interiors. Closes April 30.

Competition No. 37.—Branch of a tree without leaves. Closes May 31.

Competition No. 38.—Domestic animals. Closes June 30.

Competition No. 39.—Genre pictures, or pictures that tell a story. Closes July 31.

Competition No. 40.—Branch of a tree with leaves. Closes August 31.

Competition No. 41.—“At Home” Portraiture, that is, portraits not made in a studio. Closes September 30.

Competition No. 42.—Snap-shot pictures. Closes October 31.

Competition No. 43.—Landscapes. Closes November 30.

Competition No. 44.—Flower pictures. Closes December 31.

RULES.

1. There is no restriction as to the number of pictures to be sent in. On the print there should be written the title and the sender's name and address, but nothing else. Accompanying, a letter or postcard should be sent us, giving full particulars of date, light, plate, stop and exposure given; also the printing process.

2. Mark outside of package with number of competition. Ordinary letter rate must be paid where descriptive matter accompanies prints.

PRIZES.

First.—Books to the value of \$5.

Second.—Books to the value of \$2.50.

Third.—Books to the value of \$1.

Any books, on any subject, or if preferred, any article we can buy in Chicago.

OUR PICTURES.

A Canadian subscriber writes: “Are the pictures we see in THE PHOTO-BEACON from time to time (outside of prize pictures), selected from those sent in by readers? If so, I rather think it would be news to some to know it.”

Our reader has guessed right the first time. We want to see what our readers are doing, and if they knew how much their success encourages the editor to comb the world with a fine comb to get the right kind of literary matter for them, why they would simply bombard him with the best they have. We want every reader to send us the very best thing he ever made, and to send it at once. We are no creator—making something out of nothing—and must depend on the rest of the world for our material.

CAT PICTURES WANTED.

The *American Cat News*, Cable building, Chicago, the first journal of its kind in this country, would take it as a great favor if those possessing pictures of cats would send them prints. It is a very interesting publication and lovers of cats would enjoy it.

A NEW FIXING BOX.

G. Gennert, 24 East Thirteenth street, New York, announces that he has just put on the market a new fixing-box made of compressed fiber, the same material that is used in making the Duranoid trays. The fiber is of unusually tough quality and has a fine glossy appearance. This fixing-box takes 4 by 5 and 5 by 7 negatives. It can also be used for stand development, which, as our readers are aware, is a very popular method with many, but for those who are not familiar with it, we would say a very weak developer is used, preferably Glycin or Ortol, the box covered up, and in about half an hour the plates will be found fully developed. This box sells for \$1.50.

The Photo-Beacon “Exposure Tables” are guaranteed to be correct. Price, 25 cents.

CRITICISM OF PORTRAIT WORK.

The publication of Mr. Vanderpoel's articles on "Posing and Lighting" has brought us a large number of letters inquiring if Mr. Vanderpoel will undertake to criticize portraits sent to him. We have consulted with him on the subject and find his time is pretty well taken up. He is, however, anxious to help as much as he can, and has agreed to criticize any print sent to him for the fee of \$1. We need scarcely say that only such prints as the photographer is really interested in should be sent. Mr. Vanderpoel's address is Art Institute, Chicago.

ONE SECRET OF SUCCESS.

F. Dundas Todd:

DEAR SIR,—THE PHOTO-BEACON is (as it ever has been) worthy of a place on any amateur's table, and on the whole, to my mind, *better value for the subscription price than any other photographic periodical it is my pleasure to read.*

I can not do better than take this time to tell you how much your exposure tables have helped me. I started at film photography back in 1889, but from about 1892 to last June there was a hiatus during which everything photographic made wonderful strides of progress, so I was practically a beginner again when I recommenced the fascinations of photograph-making.

I got your two booklets of reference, and *studied* them. I used the tables in connection with what little common sense I was master of. I have been fortunate enough to get a few prizes in cash and materials for some of my pictures and I attribute a measure of this to your straightforward instructions and exposure information.

Faithfully yours,
WILLIAM PERRY HOPKINS.

THE WARNICA PLATEHOLDER.

We have just had the pleasure of inspecting this new adjustable plateholder and we can recommend it as the best thing of the kind we ever saw. They

are suited for almost all cameras. We saw also a specimen of an ordinary plateholder which is very simple and very good.

ROTOGRAPH PAPER.

We take pleasure in noting the fact that Rotograph paper has seemingly met with a very gratifying reception wherever introduced. It is a regular bromide of silver paper, suitable for either contact work or enlargements, is usually exposed by artificial light and developed in the darkroom in the same manner as a dry plate or film. It possesses great latitude of exposure, no tendency toward greenish blacks or staining, and the results we have seen easily substantiate the claims made by the company as to the quality of its products. A most artistic exhibit of bromide work can be seen at the show rooms, No. 7 West Fourteenth street, New York, where visitors are always welcome.

ILLINOIS CONVENTION.

The third annual convention of the Photographers' Association of Illinois will be held at Quincy, May 28, 29 and 30, 1901. There are nine portrait classes, full particulars of which can be had on application to the secretary, H. Milton Waide, Quincy, Illinois.

THE Channing Club, Berkeley, California, announces that it will hold an amateur photographic competition on April 11 and 12, 1901. All prints entered must be from negatives made between December 20, 1900, and April 8, 1901. Full particulars on application to the secretary, Miss Jessie Milliken, 2601 Barker street, Berkeley, California.

THE Straight Dry Plate Company announces that it has purchased the machinery, tools and equipment of the Columbian Dry Plate Company and the Jamestown Dry Plate Works, and will continue to manufacture the Columbia, Chautauqua and Sun brands of dry plates.

PORTRAIT POSING AND LIGHTING.*

BY J. H. VANDERPOEL,

Head of the Department of Figure Drawing and Painting in the Art Institute of Chicago.

CHAPTER III.

GROUP COMPOSITION.

The pyramidal arrangement in a composition tends to the support of the component parts in producing a balanced whole. But the balancing or arranging of the parts should lead the eye easily and gracefully over the surface of the picture from minor objects to the central point of interest, and vice versa. In his mistaken desire to give the utmost satisfaction and pleasure to his patrons the average photographer, in his group pictures, insists upon making every figure and head vie with the others for conspicuousness. The heads are generally placed on a level, varying only according to the height of the person, the figures being crowded in rows, one above the other; if both sexes are present, the women are huddled together, with the men encircling them, giving no prominence particularly to the leading characters in placing or lighting. The outcome of the whole arrangement is stupidly ugly and formal, stiff rather than dignified; the bare floor in the foreground leads the eye abruptly against a solid mass of figures, unrelieved by a single one leading into the group, and terminates as suddenly with an ugly silhouette against the background. It is certainly entirely in keeping with the ethics of family relations, as well as the fulfilment of artistic requirements, that the heads of a family should form the center of interest. Fig. 13 in the February number is illustrative of this point. This suggests the possible variety in composition that the photographer must appreciate, and should be the basis of his arrangement, and when once understood will be a good beginning. This holds equally good in the case of any two figures, be their relationship what it may; study it and keep them at ease, that their intimacy may be retained. How rarely do we see a mother and child portrayed in a

sympathetic relationship. The child is generally held awkwardly, as if to be photographed for purposes of identification, with the mother suggesting no other relationship than that of nurse or hireling. Such results are so common as to be a libel on motherhood, as well as on good taste and artistic photography.

Then there should be an effort to pose the figures and turn the heads in a variety of attitudes, such as will maintain a feeling of common interest in the grouping, thus avoiding the stiffness that comes from seeing all heads in a full front view. Having fixed in his mind the relative importance of the various members of his group (the family group is used as an illustration, as it is the most common, but it refers to any arrangement), the photographer should proceed to form a mental picture, keeping three requirements continually before him, as they relate essentially to line composition. First, the pyramidal form of grouping already referred to, with its ground plan showing the third dimension. Such a pyramid may be made up of minor ones, according to the number of members in the group. Second, the eye should discover a dominant line, traveling from a minor person or point in the group to the center of interest and, continuing, touch upon all others in it. The third principle relates to the silhouetting of your group

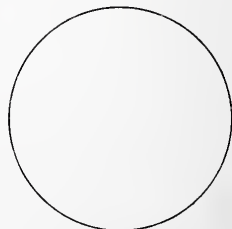


FIG. 14.

against the background and the floor. On the first requirement we dwelt at sufficient length in the second chapter.

The second point relating to the use of a dominant line which leads the eye gracefully over the surface of a picture will receive my present attention. This dominant line, though it may be varied

* Copyright, 1901, by F. Dundas Todd.

in its character, is based on simple principles. It may be a circle (Fig. 14), an oval in an upright, horizontal or diagonal position (Fig. 15), or it may be a reverse curve used in its entirety or in portion (Fig. 16); from these lines tangentials may diverge (Fig. 17), leading the eye into the more remote parts of the picture secondary in interest. In fact, there should be a

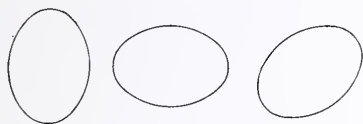


FIG. 15.

dominant line, a secondary one opposing it more or less, and then lesser ones, each occupying the eye in ratio to their importance. The dominant line may be a combination of several of the above or parts of each, as the case may fit.

The diagonal line running across the surface of a picture is scientifically most agreeable as a variation from the rectilinear form of the four sides of your picture upon which to hang the most important features of the composition, and so may readily become a dominant



FIG. 16.

line. Minor incidents may hang upon a secondary diagonal running in an opposite direction and crossing the principal one to the right or left of the center, and above or below it. The crossing of the two lines at either end of the center leaves a larger space on one side to be filled by the principal group and the smaller by a minor one. These may overlap the lines in such a manner as to touch upon an oval or circle, as the case may be, that will include all the incidents against the background or upon the floor (Fig. 18). Thus the pyramid is preserved, the eye relieved by the contrast of the masses confined between

the lateral arms of the cross and the entire arrangement of silhouetting against the background and floor bound together by the circle or oval, resulting



FIG. 17.

in pleasing lines to the eye and making an agreeable composition.

Though the photographer's art, because of its commercial phase, demands that each figure and head should possess the character or likeness of the sitters in the group, there is no reason why the beauty of grouping in a composition should be sacrificed ruthlessly for the sake of making every member of it staringly prominent. This is emphatically inartistic and every photographer knows, however much he may endeavor to please the uninitiated patrons from their own point of view, dissatisfaction as a result of his efforts is a daily occurrence, so he might as well indulge his artistic temperament and accept the risks as being no greater than when he acquiesces to his patrons' tasteless desires.

A good architect takes advantage of the lay of the ground to give his house an appearance of growing from it, not shooting through it. As the gnarled,

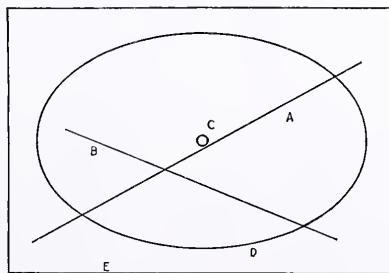


FIG. 18.

A, dominant diagonal line. B, opposing diagonal line. C, center of picture. D, oval; including principal points of interest. E, frame of picture.

exposed roots of an old oak give the feeling of firm attachment to the earth instead of shooting from it like a telegraph pole or fence post, so should the photographer group his figures as if rising from the floor; anything to avoid the stiff arrangement of ten pins running along a line parallel to the base of

used as the dominant line in a composition as well as used in denoting grace in a single figure of which more when we consider posing; in fact, the diagonal line may be turned into it or rather we may use the reverse curve in a diagonal manner. A good plan for the study of composition at the command of all, is to



FIG. 19.

A FAMILY GROUP.

the picture. So, too, the architect adjusts the roof of the porch, the gables, dormer windows and roofs, and the chimneys to create a sky-line agreeable to the eye; so should the heads in a group rise and fall to avoid too rigid a line against the background. The reverse curve or line of beauty may be

take reproductions of works of art by great painters, and failing them, the fine illustrations in the higher grades of magazines, and study them in this fashion. Fasten one to a drawing board, heavy cardboard will do, place over it a sheet of firm tissue paper, and trace with a pencil, not the figures and background

as if to make a copy, but the dominant lines in the composition; first the important ones and later the minor. This will require several attempts, as the lines have to be searched for. Before making the actual tracing, however, study the picture carefully so that your final diagram will not be the result of a hasty

an admirable exercise, requiring no skill, can be done by all, and when tried often enough to appreciate the meaning of it, the photographer may readily apply it to his own work and discover his own weakness in composition, for when that is bad the result in the diagram will be a mere jumble of lines.

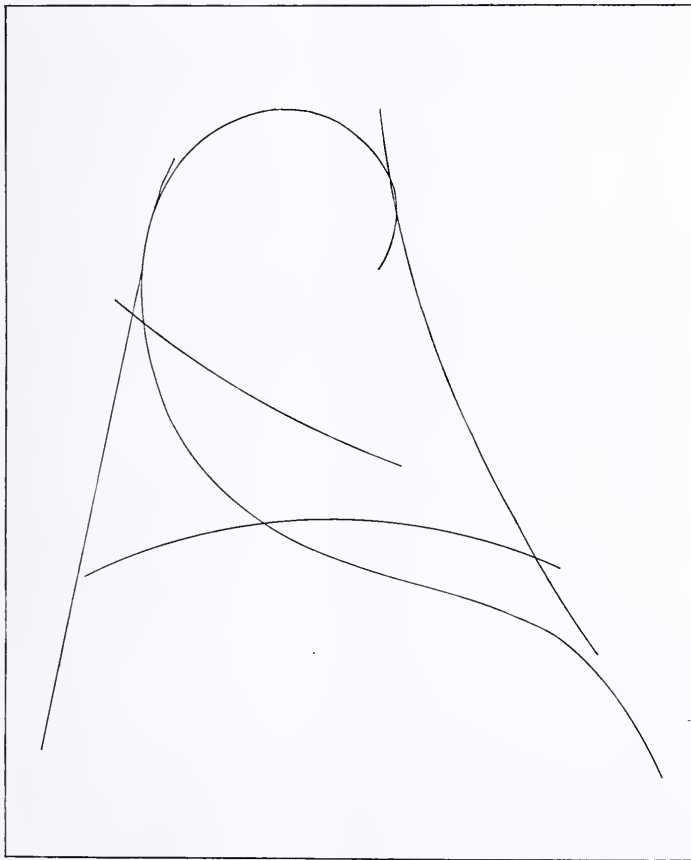


FIG. 20.

Principal lines of composition in Fig. 19.

conclusion. When the tissue is removed after making a tracing, place it upon white paper and the outcome will be, if the original composition be good, a symmetrical diagram, containing such forms as already referred to, the pyramid, circle, oval, diagonal line, reverse curves, etc., or a combination of some or all, not forgetting a proportion of vertical and horizontal lines. This is

SUBSCRIPTION COMPETITION.

This competition, which closed on December 31, 1900, is not finished at the moment of going to press. The first prize was gained by Dr. Detlefsen, Chicago, who secured fourteen new subscribers, and is now the happy possessor of an anastigmat lens in consequence. Three gentlemen tied for the next two prizes with a record of seven new subscribers each, and they are now working out a second heat which expires on February 28.

PHOTOGRAPHIC PRINTING PROCESSES.

BY LOUIS H. HOYT.

CHAPTER III.

CHLORIDE OF SILVER PAPER—GELATIN AND COLLODION.

For years the most popular paper has been chloride of silver—printing-out, as it is called, on account of the image being visible even to the finest detail during the progress of printing. The paper is prepared by coating with an emulsion of either gelatin or collodion in which the silver salts and preserving chemicals are incorporated. That prepared with gelatin is probably in greater demand when a glossy surface is desired for the finished print. For a matt finish (that is, one without gloss), the collodion is generally selected. We will consider the glossy papers in this article.

If rightly stored, these papers keep in good condition for a considerable length of time. The most trouble with spoilt paper is experienced during the summer season, but the liability of its doing so can be greatly lessened by keeping it in a dry, cool place. Comparatively fresh paper gives the best results, but old paper, even though it has colored considerably, can be used and good results obtained. Old paper must be more thoroughly washed, and salt added to the water, if the surface is tinted.

Trays suitable for handling this paper have been described in a previous article. It is absolutely necessary that the trays used be perfectly clean and a separate tray used for each bath and for that particular bath only. Five trays are required—one for the first washings, one for toning, another to hold prints after toning, a fourth for the hypo bath, and lastly one for the final washing. Don't attempt to use the same tray for the first and last washings. It will work all right the first time the trays are used, but with your second batch of prints there will almost certainly be troubles. Many amateurs, especially beginners, fail to provide the necessary trays, depending on dishes from the kitchen, wash bowls, etc. These workers are constantly in trouble.

If rigid economy is necessary and such dishes must be used, scald them thoroughly with the hottest water you can get and be absolutely certain that not a fraction of a grain of soap or grease remains in or upon them. Always mark the trays so that they can not become mixed when wanted again.

The water, especially for the gold bath, must be pure. Distilled water is best, but is not generally at hand. Rain water is generally good. Melted ice is often recommended, but it is a question whether freezing purifies the water. In the larger towns and cities where there are waterworks, the city water, as it is usually called, is plenty good enough, unless it is drawn from artesian wells, and then it is very apt to be unsuitable. Water for the gold bath should be filtered before the chemicals are added.

Very elaborate plans and specifications are published from time to time describing various means of purifying water. Theoretically some of the processes are good. I never had occasion to test them and do not remember of ever having seen any of the methods described put into use by any one but the inventor. Not one photographer in thousands, either amateur or professional, will make any effort to purify water chemically, and I think they are just as well off. If water is so bad that it must be treated chemically, the average photographer will figuratively jump from the pan into the fire in attempting to doctor it. Use the water at hand for washing and fixing, unless it is known to be unfit. The water for the gold bath must be pure.

The different washes and baths should be kept at as near the same temperature as possible, and for comfort, if for no other reason, should not be too cold.

The printing is done either in direct sunlight or in the shade. Good printers print under ground glass, or cover the frame with tissue paper. This is especially necessary with thin negatives. Use care that the paper is of a fine texture and not placed too near to the negative or the print will be mottled. It may be necessary to tack a thin strip of

wood around the face of the frame and tack or paste the tissue paper to this, in order to prevent the grain of the paper showing. I remember one instance of a print which was offered for inspection which showed large mottled spots over the entire surface, and I was assured

with fine white lines, was another cause of complaint which an inexperienced amateur hastened to make.

Experience must be the teacher as to how far the printing must be carried. As a general rule, for single gold toning the print must be considerably darker



Negative by F. C. Baker,

Cleveland, Ohio.

A CLOUDY DAY.

that the paper was defective. Upon tracing the matter it was found that the printing had been done in front of a window that was covered with frost. The rest of the paper in that box made good prints. Setting the frame close to a wire fly screen when printing, with the result of leaving the print covered

than the finished print is desired. With an average negative, carry the printing to a point where the whites will be slightly tinted over; the shadows will be quite dark and the general sharpness and clearness be so darkened that the print will appear rather indistinct. Little can be judged from the color of the

print. Paper in good condition, printed from a bright, crisp negative, should be of a rich, warm, cherry color. If a negative is thin and lacking in contrast, either from underdevelopment or over-time, or is foggy and gray, the print will probably be of a bluish tint, or a dirty red color, even though the paper be in perfect condition. Prints from such negatives are difficult to tone. The negatives should be strengthened.

While it is possible to keep the prints for some time after printing, before toning, it is advisable to finish them as soon as possible.

The first operation of the toning process is the washing, and the greatest care must be taken that this is thorough, for all the soluble chemicals must be washed away. Running water should not be used. It is far better to use several changes of still water.

The manner of washing gelatin and collodion papers differs slightly in that the collodion paper must be flattened to prevent curling, while with gelatin this is unnecessary. When a collodion paper is put into the water, the paper swells across the grain, and one side being held by the film while the other expands, the print first bends and then curls up, sometimes very tightly. This is easily prevented. Place the collodion print in the water and wet it thoroughly. Just as soon as it shows a tendency to curl press it face down on the bottom of the tray. Put in the rest of the prints, one at a time, laying them one on the other in an irregular pile. After all are in, press them down firmly and pour off the water. Set the tray on edge and allow to drain, pressing out the surplus water with the palm of the hand. Now refill the tray with water and make a new pile of the prints at the other end of the tray, handling them one at a time. Continue stacking them in this manner until they lose the tendency to curl, after which they may be washed without stacking. Stacking in this manner is for the purpose of holding the prints flat until the paper has swelled in thickness instead of across the grain.

Gelatin papers, if very old, sometimes

curl a trifle, but it is not necessary to stack them, as they will straighten out after a short washing.

Before handling the prints in the wash water the hands must be cleaned thoroughly. Just rinsing them off will not do. Use good warm water and soap and then plenty of clear water. If you make up your hypo bath just before toning, keep your hands out of it.

The washing must be done in a weak, subdued light. If the light is too strong the whites will discolor and the prints lose their clearness. Keep the prints well separated and continue the washing for a full half-hour for a small batch and longer for a larger one. You can make it a rule to wash prints for an hour and results will prove that you are making no mistake by so doing.

The last three changes should not show a trace of the milky appearance which the first few washes will, and the prints should be of an even brick-red color. Many printers add an ounce or two of a saturated solution of common salt to each gallon of the second or third wash water to color and clear the prints. It is not necessary, but if you never tried it I would advise you to do so.

Some manufacturers of gelatin paper harden the film considerably and others very little. Either paper gives good results, but, in my opinion, the paper with the smallest amount of hardener in the film is the better. Should it become too soft to handle safely during the warm weather, it is easily hardened. During the preliminary washing, if it is noticed that the film is becoming very soft, or is inclined to blister, add an ounce or so of hardener to the water. Put in a little at a time, so that no more is used than will harden the film sufficiently to stand the handling. A good hardener formula will be given with the fixing bath. In an emergency a solution of one ounce of alum and a few pinches of salt in say twelve ounces of water, may be used as a hardener, or even plain alum. Use just a little at a time.

Too much attention can not be paid to the proper and sufficient washing of the prints before toning. It is very generally slighted, and those who slight

it most to save time are the very ones who will waste an hour writing a four-page kicking letter to the manufacturer when the troubles are of their own making.

Before closing for the month I want to give a word of advice to those who hasten to send in a complaint every time they spoil a print. If you have reason to suppose that your paper is defective and should be replaced, send a few of the prints showing the nature of the defect and also a few sheets of unused paper for the manufacturer to use in tracing the trouble. Just wrapping the paper in your letter will not do, as it

always gets discolored before reaching the factory. Wrap it in black, red or yellow paper. Do not write a long letter stating the name of your camera, its price and date of purchase. That has nothing to do with the matter in hand. Talk to the point. In this way your communication will receive prompt attention and your claims, if valid, will be just as promptly adjusted.

THE Kentucky and Tennessee Association of Photographers will hold its first convention at Nashville, Tennessee, on April 16, 17 and 18, 1901. Secretary, C. P. McLean, Henderson, Kentucky.



Negative by James E. Taggart,

Delaware, Ohio.

BREAKFAST.

VOIGTLANDER AND I.*

BEING THE REMINISCENCES OF JAMES F. RYDER.

CHAPTER III.

Now came Professor Powelson, carrying an air of intelligence and success. His work was fine, yet differing in a way from Mr. Lawyer's, and because it differed I coveted it and so took instructions from him. He too had a hobby. He showed me that the foundation for fine daguerreotype work was a finely polished plate, which could only be secured by a *perfectly dry buff* of fine buckskin well rouged, and the finishing touch given with calcined lampblack upon another buff of buckskin thoroughly dry.

The Powelson method necessitated a special drying-box slightly heated by a spirit lamp burning under a funnel-shaped tube of tin running up through the box. The dry buff produced a fine polish and excellent work; the opposite methods were both good, so I was content to know them both.

I had been much troubled in first commencing with the shirt bosoms and other parts which should have been white in the picture coming out blue. I did not like it and asked my first instructor why it was and how to prevent it. He explained that it was bad indigo put in the starch, preparatory to ironing the shirt, and the reflection from it blued the surrounding parts. Since we did not always get blue linen, it might be inferred that all samples of indigo were not bad. A visiting daguerreotypist making a friendly call referred to it as a blemish in my work. I asked him if he knew a remedy for it. He said, "Oh, yes, but I shall want \$10 for it." I agreed to pay his price if the remedy proved successful. He told me to slightly increase the blaze of my spirit lamp under my mercury bath and try a picture. This I did and my trouble in that respect was gone. I not only got white linen but secured a richness of tone I had not before, so I was pleased with my investment. The man earned his \$10 easily, but it was an advantage to me worth more than I paid. Thus I

got my education. Many men had secrets to sell and I was a ready buyer, as it seemed my only course for advancement. A few months later, one very wet day there came into our studio a very wet man. He said he was a daguerreotypist, had missed his boat, and came in for a friendly call. He handed me his card, which read:

CHARLES E. JOHNSON,
CLEVELAND, OHIO.

He was just from New York, and on his way home to Cleveland, where he had a business of his own. He said he had formerly been operator for Plumb, of New York, and that he had a daguerreotype of his daughter and her babe — possibly I would like to see it. He showed it me and I was fairly dazed with the beauty of it.

I had seen nothing before to approach it, nor dreamed a thing could be so beautiful. The lady was loveliness itself; the child was a miniature edition of her, sitting upon a little table leaning its baby cheek against the mother's. The position and every detail of arrangement was perfect. Beaming from the mother's face was a flood of love for the baby. The superior quality of texture, tone, color, coloring and finish was quite beyond my ability to describe. I had never before had such a pleasure in a picture. Finally he handed me another picture, a view of Superior street, the principal business thoroughfare of his city. It was beautifully taken and showed a fine street. In the immediate foreground of this view was a heavy post extending up from the sidewalk with a large washboard and pitcher on top marking O. A. Brooks' crockery store, a landmark remembered by old Clevelanders of half a century ago. I told him I had never before seen anything so fine, and was sure I could never equal it. He said, "Oh, yes, it will be easy enough when you know how, and I can easily teach you." He told me that quality of work resulted from a discovery of his own — he had made a modification in the chemicals employed, using a "dry quick" instead of the usual "liquid quick" in common use. The price was \$15. He said he

* Copyright, 1900, by James F. Ryder.



Negative by H. Richter, Maxwell, Texas.

SECOND PRIZE.

had sold the formula to the leading proprietors in New York city, and all were glad to get it. The opportunity for securing such a prize could not be missed. I surely must have it, and said, "Yes, I will take it."

The formula for this "quick" was the mixture of German bromine with air-slacked lime, to saturation, the older the lime the better. I was to send to Dr. J. R. Chilton, chemist, New York city, for the bromine, "mind you, German bromine," said Mr. Johnson, as I paid him. "Now, good-by, young man; I wish you success. If you ever come to Cleveland, give me a call. I shall be glad to see you," and he was gone.

My heart was "all a-flutter" in my new possession. Now Voigtlander and I were better prepared to face the world. The following morning I commenced the hunt for air-slacked lime. I had the great luck to find, in the possession of a friend, a kegful which had been in his attic three years, and it soon was mine. I had sent for the bromine the night before.

When it came I commenced at once the preparation. In a wide-mouth ground-stoppered bottle of good size I put a quart of the lime and introduced

the bromine a little at a time, as directed, shaking thoroughly between each addition until the fumes of the bromine were absorbed in the lime.

At last I was ready. I had secured a special coating-box for the new "quick," and I made a trial—in fact, I made repeated trials—and it worked, and worked well, though not giving results equaling the finished samples I had seen and hoped for. I was a bit disappointed, but I tried to comfort myself that I must not expect everything at once. It must be worked out.

I found on continued use of my dry quick it was really a great advantage, and so was content with my investment.

Occasionally the Professor showed up. He was more interested in lecturing and selling phrenological charts than in making daguerreotypes, so his tours were extended to greater distances. He had gotten new trousers, of better length, had discarded rubbers for daily wear, blackened his boots and was really getting quite smart. He was desirous of selling out. I was inclined



Negative by Emma L. Williams, Hartford, Conn.

THIRD PRIZE.

also to go out for myself, but at his desire I took charge of the business for a share of the proceeds as compensation.

Now came the announcement of the discovery of gold in California, which had a favorable effect upon our business. The country was all astir for a time, as the "California fever" raged hot. Young men with golden visions were going, fathers mortgaged their property to raise money for their sons, while many forgot their years and went out with the boys. There had been nothing in the history of the country to so excite and interest the people, and on every hand great preparations were being made, while the "overland" and the "voyage by sea" were discussed by everybody. Parties of friends clubbed together to do or die, or to get gold.

The perils of the journey were little understood. The unknown route, the danger from hostile Indians, the chance of perishing of illness or starvation, of leaving bleached bones upon the plains, were chances to be taken and to be considered before starting. There was much of heroism to be exercised — on the one side sure privation and hard experiences; on the other hand, possible success. *Gold, gold*, some gold, or a lot of gold! So they take their lives in their hands and start.

Before leaving on this desperate enterprise, daguerreotypes were wanted to leave with friends, and it gave me work. Many who came for likenesses brought with them outfits to be shown in their pictures. Tents, blankets, frying pans in which to cook bear meat, buffalo steaks and smaller game by the way, and to wash out their gold on reaching the diggings.

Among the explorers was young Billy Randolph, a jeweler's clerk, a modest boy fair enough to have been a girl, and many a girl could envy him his pure complexion and fine color. He was indeed a beautiful boy and the idea of *his* going out to "rough it" with brawny men seemed almost a pity, but a stout heart and plucky spirit lived under Billy's shirt. He went out with the boys and men, made his mark and his pile. I shall never forget him. He

paid me the first money I ever received — my very own — for a daguerreotype. It was a two-and-a-half-dollar gold piece. For many years I have found much fault with myself for failing to keep that coin, but I did not stop to think or realize at that time how valuable it would have been to me now.

Ah, Billy! Playfellow, schoolmate, comrade! Never again can I see you. 'Tis said the streets are paved with gold where you have gone; may you have a good claim staked off there! But the little golden coin you gave me was from unknown diggings, and can only be known to me as a memory through all my life.

SOME REASONS FOR NON-IMPROVEMENT.

While there are always a few amateurs whose work commands attention wherever it is seen, and who are adepts in modifying processes so as to attain results best suited to their work, the proportion is small—very, very small—as compared to the army of button-pressers, bulb-squeezers and slap-bang snap-shooters whose work is about as artistic as a modern sky-scraper.

If there is any merit in the proverb that "plain words are good for the soul," then perhaps some attempt to analyze the conditions responsible for the poor work of the majority will not be out of place.

From a study of the *genus photographici amateuri* one can not but be impressed with the idea that the average of the species not only is satisfied with the quality of the photographs he makes (call them not pictures!), but that he considers time ill-spent in reading the photographic periodicals; and experimenting with formulæ and dabbling in embryo chemistry he believes a waste of time.

And the genus amateur is notably stingy. Money spent for plates and paper he considers essential, but to suggest the purchase of some few appliances to improve his work—why, he scorns the idea as "extravagant!" And it is not a poverty-stricken horde—this host of amateurs—for sometimes those

who can best afford to buy accouterments are the last to be open to the conviction that anything of the sort is needed.

Did you ever run across the amateur who wouldn't buy a darkroom lamp? No, indeed; he *made* his. Does it leak light? Well, a *little*. Are his plates fogged? Oh, yes, but that's the fault of the camera leaking light, or the plates being old, or the plateholder slides not working smoothly — it's something else than the very thing it really is — false

shutter worked at only three speeds — not marked — and his largest stop was U. S. 16. The bellows was very short. So was the time before this lavish buyer found that the size head possible to obtain on his 4 by 5 plate was too small for his requirements. A friend suggested the purchase of a supplemental set of lenses (for the aforesaid Cræsus wanted to make interiors too), but the cost of the inexpensive little things was too much for his purse. He had paid \$6 for a camera—the 1900 model of which



Negative by F. A. Grant,

CUTTING PEAS.

Toronto, Canada.

economy in failing to buy a *good* dark-room lamp.

I once knew a merchant — doing a good business and whose wife was rich in her own right — who wanted a camera to take photographs of his baby. He dogged the shops for a secondhand one with all the modern adjustments which he could buy at the price of an old-style instrument. Finally, despite advice of a brother amateur, he bought a folding camera of uncertain age, whose bellows and bulb-tube were past their prime. He wanted to make snapshots indoors of a lively baby — yet his

was quoted at a little over \$8, with its many improvements — and he balked at an additional outlay of \$5 to make his camera available for what he wanted. He said he “didn’t have the time to spend in the work to warrant buying anything like that.” His baby is not having many sittings now; his camera lies unused; likewise much of his income — but he was “economical” (?).

An amateur of my acquaintance who had a large income had bought a medium-grade camera with a very fine lens and shutter, and wanted to do telephoto work. He balked at buying a telephoto

tube and lens on account of the cost. He also wondered why he couldn't keep his camera from wavering in the wind, though he had a very springy and light tripod. A friend suggested his using a second tripod screwed to the forward socket of his camera bed—it was a long-bellows instrument—and he did so. He experienced some little (!) difficulty in getting his instrument absolutely level by the two-tripod method, but it was not to his mind to buy a single strong, stanch tripod even when the idea was suggested to him. He “had paid for two and he was going to use them!”

Another man, who wanted to use developing papers, scoffed at the hint to gain the correct exposure by small preliminary test slips, on the score that it took too much time! Yet he often complains of photography as “an expensive hobby!” Still another scorned to use an exposure meter or a set of exposure tables on the theory that “it was only a question of time when he would learn what exposure was best.” The time is not up yet.

A man who bought a wide-angle lens for his folding camera used the focusing scale intended for the lens sent out with the camera—nor would he condescend to look at the ground glass image for some time after he was told the cause of his failure to get anything except a few blurs on his plates.

One ambitious amateur said he “always exposed both plates in a holder, even if he didn't find some subject quite to his taste for the second plate, because it was so much easier to develop plates by twos!” Another non-believer in exposure tables used to expose two plates on every object at respectively long and short exposures, “so as to be sure to get it right.” He usually underexposed one and overexposed the other; and having no inclination to “read up” on the subject of treating such plates, he complained of the attendant expense.

Seventy per cent of the amateurs who do their own developing use prepared solutions, either from laziness or ignorance or because they are satisfied with anything which blackens the emulsion

on the plate. Fifty per cent use a single solution at full strength because they “can get through quicker.”

If you want to learn how really little the average amateur knows of his work, stand at the counter of a photo-goods dealer and hear the questions and comments of the customers. I was telling a friend of striving for cloud effects in a high wind one October day when the light was dull, and my inability to get what I wanted because I couldn't use a deep-tinted ray screen on account of the clouds moving too rapidly to admit of sufficient exposure, whereupon a know-it-all amateur broke in on the conversation with: “You're wrong there! You *can* take a snap-shot after four o'clock in the afternoon no matter how hard the wind is blowing!” After a counter-question or so I learned that the young man who differed with me didn't know that the use of ray screens required increased exposures, and apparently supposed summertime and autumn light was all the same “so long as it was four o'clock.” This same prodigy went on to boast to the dealer of some cloud effects *he* had made—but he didn't know what color-sensitive plates were; he hadn't used a ray screen; he took them at noon-time near the seashore. He developed them “same as usual.” Was he telling the truth?

Another—but why go on? Isn't it enough to know that the horde of incompetents go about with their eyes closed; that all the photographic journals in the world wouldn't make them change their ways? To spend a little extra time getting the proper position of the camera and arranging for the right amount of foreground; to develop a little slower to get detail; to—oh, what's the use? They simply *won't* do it. Most of them haven't the slightest distinction in their minds between the meaning of “photograph” and “picture.”

So keep your advice till it's asked for by an earnest zealot who is trying to improve his work. Don't try to tell the careless “plate-waster” what to do. He won't thank you for it and he will think you are trying to impress him

with your own superior knowledge. Let him wallow with the rest of his kind in the depths of his stupidity — and confine yourself to correcting errors when the one who makes them asks you to do so.

It is no wonder the dealers don't try to educate the masses to knowing a little of what they attempt to do. It means more plates sold and more printing paper if they let them go on wasting them. Besides, if advice was offered, the chances are that the amateur would take it amiss and hie himself to another dealer who praised the work instead of condemning it. And don't forget that the ordinary photo-goods dealer (who is usually a stationer or sells sporting goods or is an optician) does not as a rule know any too much of the why and wherefore of photography himself!

If a few sample copies of good photographic journals do not wake the maker of inferior photographs to an inclination to get out of the slough of ignorance in which he finds himself, he is a hopeless case. Don't waste your time on him! He would buy buckshot for the bearings of his bicycle if he lost the steel balls, and have no doubt of their equal efficiency. He would "see Eu-

rope in two weeks" and have a few days left! His species will always revolt against efforts at education. Pompey, Darwin, Cleopatra—they're simply *names* to him! On the theory that nothing is wasted in the universe, he is a benefactor to the platemaker if not an honor to his brethren of the camera!

KENDRICK PERRIE.

MORE CONCERNING REDUCTION.

I read with great interest the article on "Reduction," by Mr. W. Marshall, in the November number of THE PHOTO-BEACON.

It has always been my practice to reduce a negative in preference to intensifying it, reduction being more easily accomplished than intensification and more permanent. I always use a rather strong developer and develop until the detail in the shadows is well brought out. Should my negative, after fixing, washing and drying, be too dense, I reduce it generally; if too dense in places, I reduce it locally.

I have been experimenting with reducers, and found that those containing the cyanides were — besides being poisonous — rather unreliable. At times they work admirably, at others they



Negative by A. P. Center,

COUSINS.

Denver, Colo.

work so rapidly as to be entirely beyond control. There is another most potent objection to their use and that is that, unless the plate is thoroughly rid of its presence, the plate loses its permanency, and should one want to use the negative again after some time, it will generally be ruined.

The cheapest, best and most reliable reducer that has ever come under my observation is the "Oxpo" reducer, made by the New York Photographic Company. It is a solution which can be used over and over again before it loses its strength. I use it as follows: I take the plate and, without wetting it, place it in a tray, into which I have previously poured some reducer. I remove the negative about every half minute and examine it by transmitted daylight and replace it if necessary; otherwise I put it in running water and wash it for about half an hour. The reduction I always carry on in full daylight, only taking the precaution not to let the rays of the sun touch it, as they will cause it to decompose.

In reducing locally, I wet the whole negative by submerging it in a tray containing some reducer, remove it immediately, applying more reducer to the dense parts by means of a camel's-hair brush or a tuft of cotton. Should the negative show signs of drying before I have finished, I again submerge it in the solution for an instant and then recontinue my local work. Just wetting the entire negative with the reducer has very little effect on the density of it. The advantage gained is that after the entire operation is completed one can not distinguish a line of demarcation between the reduced and unreduced portions.

A thing that I have recently discovered while experimenting with this reducer is its perfect adaptability to the reduction and clearing of overdeveloped Kruxo and other developing-up paper. I have saved many prints from the waste basket by its use (prints which I thought it was folly to try to remedy, but only did so as a matter of experiment). The permanency of the print is not affected and neither the print nor

the paper is in any way discolored. I simply saturate the print with water and place it in a bath of reducer until it is just as I want it, and then *immediately* plunge it into water, as otherwise the reduction will be carried further than is desired. I wash the print for about an hour and the operation is completed.

One other experiment is worthy of mention: I made a Kruxo print from an unretouched portrait negative, and after wetting the print with water, I locally reduced, with a camel's-hair brush, all objectionable lines and spots from the print, washed and dried it in the usual way, and found after completion that it was impossible to find any trace of the lines on the print.

DR. LIONEL M. HOMBURGER.

BACKING PLATES.

In the January number of THE PHOTO-BEACON, among other things of exceedingly great value, was an article on the backing of plates. A more eloquent brief in defense of this most praiseworthy practice never came to public attention, and it is in the hope of recalling this article to the mind of the hasty reader that I beg for this space.

There is no sense in making a labor of plate-backing, for it is a most trivial operation if done in the right way. In my own humble darkroom there is a wide-mouthed bottle half full of fresco-painter's black—they call it "distemper color" in the paint-shops. It is ground in water and is quite soluble even when bone dry. I mix up a 15-cent jar of this distemper black with enough absolute alcohol and honey to make a smooth paste. It dries almost instantly when spread on glass and does not rub off easily. What is best, it is absolutely matt black.

When it comes to filling plateholders, I take a plate by the edges, glass side up, and rest one corner against my left side. With a swab of cotton I quickly daub the alcohol-lampblack mixture over the back of the plate and without a second's delay insert it in the holder. It is all over in three seconds and it makes no dirt or trouble, takes no space or apparatus, and it gives results much

superior to those on naked plates. Better in tonality, better in definition, better in orthochromatic effect, free from halation, general haziness and, best of all, devoid of chalky contrasts.

Plates backed in this way are just as easily handled at the development stage as at the other. There is a slightly damp cloth on a convenient nail near my developing tray. I take a plate from a holder, wipe off the black with this cloth, taking no pains to remove more of the backing than comes easily. The black that sticks to the corners goes through all the baths, does no harm to any of the chemicals, leaves no dirt in the solutions, and finally comes off on the tuft of cotton used to clean film and glass prior to drying.

I know a dozen amateurs who waste money on costly color-sensitive plates and ray filters, whereas they would do as good or better work with cheaper materials if they would only take the

trouble to smear lampblack on their plates. This is good doctrine.

LOUIS A. LAMB.

[We have had a very large number of inquiries about backed plates and we would draw attention to the fact that both John Carbutt and the Lovell Dry Plate Manufacturing Company manufacture this kind of plate.—ED.]

PHOTOGRAPHERS' ASSOCIATION OF AMERICA.

To the Fraternity:

In presenting the minutes of the Executive Committee of the Photographers' Association of America, I wish I possessed the power to write a chorus. Not that I feel that it needs an explanation or excuse, but that I might add a trifle to its attractiveness.

The greatest good that can come to the association is from the display of pictures — good pictures. How to get



Negative by A. J. Brennecke.

(On Lovell Backed Plate.)

Chicago.

them—that's the question. Heretofore, the prizes were supposed to be the all-inspiring incentive, and it was thought that, by offering a medal or prize of more or less value, the tendency would be to stimulate the production of good things. I am not ready to assert that it has not been productive of great good, but that it has always gathered the most of the best I very much doubt. The photographic profession today consists, for the most part, of shrewd business men—men of high artistic sense—men who, for the chance of winning a medal, which might be a pleasurable compliment to their skill, would not run the risk of a freak of fortune throwing it into the hands of a purely commercial competitor, who might seek to ride into popularity on the prize so awarded.

That each exhibitor will send his best I think goes without question. The composition of the profession is a guarantee that all are making the best they can produce, and all are equally anxious to improve. The promises already given by some of the leaders bid fair to make this one of the best exhibitions that has ever been shown. The Executive Committee has many new and desirable things to attract you toward Detroit and the educational convention in August. Can you afford to miss it? We think not.

E. B. CORE,
President.

The annual meeting of the Executive Board, Photographers' Association of America, was held in New York, January 15, 1901.

Present: E. B. Core, president; D. D. Spellman, first vice-president; H. S. Klein, second vice-president; J. George Nussbaumer, secretary; F. R. Barrows, treasurer; C. M. Hayes, past-president.

Meeting was called to order for an informal discussion on plans for the coming convention.

Meeting adjourned to January 16.

Adjourned meeting called to order. President Core appointed D. D. Spellman, H. S. Klein and E. B. Core an auditing committee to pass on the report and books of the secretary and treasurer. The same were found correct.

TREASURER'S REPORT.

Cash on hand, January 1, 1900.....	\$1,201.43
Received in membership and dues...	2,773.00
Space and desks.....	1,602.50
Refund from George B. Sperry.....	.90

Total	\$5,577.83
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Total cash for 1900.....	\$5,577.83
Paid in vouchers from 173 to 230, inclusive	2,471.05

Balance, cash on hand.....	\$3,106.78
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Cash on hand, January 1, 1901.....	\$3,106.78
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F. R. BARROWS,
Treasurer.

SECRETARY'S REPORT.

Cash on hand, January 1, 1900.....	\$1,201.43
Received for space and desks.....	1,602.50
Dues	34.00
Bills receivable.....	107.50
Paid treasurer.....	1,636.50

J. GEORGE NUSSBAUMER,
Secretary.

Moved and seconded that the Photographers' Association of America meet in convention in Detroit, Michigan, August 6 to 9, inclusive. Carried.

Moved and seconded that the awarding of prizes in competition shall be eliminated from our coming convention. Carried.

Moved and seconded that this convention shall be called "The Educational Convention." Carried.

Moved and seconded that the president appoint a committee, composed of one photographer and one artist, to criticize the individual exhibits, on request of the exhibitor. The same to be given in writing and to the exhibitor only. Carried.

Rules governing the exhibition are as follows:

I.—Exhibits may be framed or unframed, at the discretion of the exhibitor.

II.—The association will not be responsible for any loss or damage to pictures in its charge, but will use all reasonable care to prevent such occurrences.

III.—Applications for space in the Art Department shall be made to D. D. Spellman, first vice-president, Detroit, Michigan.

IV.—All pictures submitted for exhibition must be addressed to D. D. Spellman, first vice-president Photographers' Association of America, Light Guard Armory, Detroit, Michigan, forwarded at owners' risk, and delivered not later than August 1, charges prepaid.

V.—Exhibits for the Manufacturers' and Dealers' Department to be shipped to J. George Nussbaumer, secretary Photographers' Association of America, Light Guard Armory, Detroit, Michigan, charges prepaid, and placed in position by August 1.

VI.—Have your box covers screwed instead of nailed. Your home address must be marked on the under side of cover for return of pictures. Association will not be responsible for packages not marked.

VII.—All boxes and packages will be accepted at any time previous to August 1, so that photographers need not feel any uncertainty about the safety of their goods. No exhibits will be allowed to be removed from the hall until the close of the convention.

VIII.—No manufacturer or dealer, or their representative, shall do business on the floor of the hall unless he or they rent floor space or desk room, and the manufacturer or dealer shall pay two dollars (\$2) for each employe or representative attending the convention.

IX.—Employees, to gain admission to the convention at the employe rate, two dollars (\$2), must furnish certificate from employer or be endorsed by two active members of the association.

Moved and seconded that the list of honorary vice-presidents be dropped. Carried.

Moved and seconded that the president appoint an advertising committee to advertise the Educational Convention of 1901. Carried.

President appointed C. M. Hayes, F. R. Barrows and J. George Nussbaumer on said committee.

President appointed following committees:

Committee on Railroads—D. D. Spellman, J. George Nussbaumer and F. R. Barrows.

Committee on Printing—J. George Nussbaumer and E. B. Core.

Committee on Button—E. B. Core, H. S. Klein and F. R. Barrows.

Committee on Hotels—C. M. Hayes and D. D. Spellman.

Respectfully submitted,

J. GEORGE NUSSBAUMER,

Secretary.

"OUR ENGLISH LETTER."

Mr. Frank Meadow Sutcliffe, of Whitby, an exhibition of whose photographs is at the moment of writing on view at the rooms of the Royal Photographic Society, occupies an almost unique position among English photographers in the esteem in which his work appears to be held by his American confrères, for, according to a statement made during the discussion which followed the reading of an address at the opening of the exhibition, a collection of his work is hung permanently in the rooms of the Boston Camera Club. The honor is certainly a well deserved one, though it appears to us that his later work lacks the delicacy and fine realiza-



Negative by S. C. Dodge,

LOOKOUT MOUNTAIN.

Chattanooga, Tenn.

tion of atmospheric effect which was so characteristic of his earlier efforts. It is usual nowadays to sneer "at the meretricious surface brilliancy" of the silver print, yet we could not help contrasting the exquisite beauty of an early direct print of one subject that alone has won for Mr. F. M. Sutcliffe a world-wide reputation—"Water Rats"—with an enlargement of the same subject in the exhibition referred to. The one was full of life, atmosphere and beauty; the other dead, flat and vapid.

* * *

The fine, artistic qualities of the silver print are certainly not appreciated by the so-called "artistic" photographers of today and the process is given over to the tender mercies of the amateur dabbler and the cheap professional. To me there has always been an indescribable charm in a properly executed silver print, which must be looked for in vain in the dead matt-surface of a platinum or bromide. The colors which sometimes are the result of gold toning are certainly not always of an artistic character, but those produced by platinum leave little to be desired. I refer, of course, to gelatin-chloride and the familiar P. O. P., and not to albumenized paper, which is at the present time almost a thing of the past. For variety of color and effect obtainable, probably no other process will bear comparison with it, and I strongly urge those whose aims are pictorial to test its capabilities.

* * *

Anent the foregoing remarks I may perhaps direct attention to the latest development of P. O. P., namely, the introduction of a new paper called "Carbona P. O. P.," by Messrs. Griffin & Sons, the well-known philosophical instrument makers, of Sardinia street, London. Although I deprecate the use of terms that may tend to cause confusion in the minds of the less informed, yet the appearance of the prints produced by this process so closely resemble those made in carbon that the name chosen would almost seem to be justified. The strong features of the paper are the comparative ease with which pleasing and artistic effects as regards

color can be obtained and the greater depth and richness of the prints as compared with those produced upon ordinary P. O. P. A rich sepia brown, or an engraving black, can easily be obtained from suitable negative, and the plummy purples and blue-blacks, which are sometimes the result of the unskillful use of the gold bath on ordinary P. O. P., can be readily avoided.

* * *

The "Kachin" patent developer issued by the same firm is a preparation which may with confidence be recommended to the amateur worker. Its characteristics are rapidity of action, cleanliness and freedom from fog-giving propensities; moreover, it does not stain the fingers and it is said not to have any injurious effect upon the skin.

* * *

To the majority of present-day photographers the early history of the gelatin-bromide process is a sealed book, and probably but few realize the amount of patient and painstaking investigation undertaken by the pioneers of the process before it arrived at a really practical stage. Among the earliest workers was Dr. R. S. Maddox, to whom the Royal Photographic Society has just awarded its Progress medal for work in connection with the introduction of the silver-bromide dry plate. That the honor is well deserved probably none will venture to question, for to this veteran photographer we are indebted for the first successful attempt to emulsify a sensitive silver salt in gelatin.

* * *

The exhibition by that talented worker, Mr. George Davison, of a charming series of prints made from Panoram kodak negatives at the last exhibition of the English Photographic Salon proved by demonstration the artistic possibilities of which that ingenious camera is capable. Photographers, of course, have long been familiar with the pictorial value of the panoramic method of treating suitable subjects, but the practical difficulties of such methods of treatment have hitherto been somewhat of a bar to their frequent adop-

tion. Unless the subject was such as to permit of the lens being somewhat unduly stopped down, the definition at the margins of the print often showed a considerable falling off. This serious defect is quite overcome in the Panoram kodak, for the mechanism is so arranged that, notwithstanding the wide field of view included in the picture only the axial rays are employed in its production, the result being that margin and center are rendered with equal sharpness; indeed, in this respect, the definition rivals that produced by the most expensive anastigmat.

The pictorial possibilities which the employment of a Panoram kodak will afford are many, but it should not be used for unsuitable subjects. For marine work it will be found invaluable, though if the exposures be made from a boat in a rough sea, a difficulty may be found in securing a straight horizon, owing to the movement of the vessel during the exposure. I have seen some very grotesque results due to a neglect of this precaution. Street scenes, also, will afford a variety of subjects, as will river views; in fact, the range of subjects is very great. At the time of writing a larger form of camera is about to be placed upon the market, which will greatly extend its sphere of usefulness and make it an almost indispensable adjunct to the apparatus of the pictorial photographer.

J. A. HODGES.

BEGINNERS' TROUBLES.

NO. III.—A FEW PRINTING TROUBLES.

Amateur photographers often complain about their gelatin prints fading and taking on a pale yellowish or greenish tone. In nearly every case the trouble is caused by the use, or rather the misuse, of a combined toning and fixing bath. The surest way, in fact, the only *sure* way, to avoid the trouble is to taboo the combined bath.

There is hardly a photographic magazine published that has not, at one time or another, lent its columns to a denunciation of the combined bath. But the combined bath continues to be used. The reason for this is its ease of ma-



Negative by John W. Schuler,

Akron, Ohio.

nipulation, and with a certain class of professionals, who travel about from place to place photographing everything where they think a print will sell, its cheapness.

They, of course, don't mind if the prints do fade. I once expostulated with a photographer of this class for the way he handled his prints, but he closed my mouth by quietly informing me that they would last until he left town.

No amateur would offer such an excuse as that, but the ease of manipulation catches many of them. Where one makes but three or four prints at a time it is easier to take them directly from the printing-frame to the toning bath and finish by washing under the hydrant. But no one need expect to find excellence living on easy street.

Again, many beginners do not know what a treacherous thing a combined bath is, and it may take them a year or so to find out by dear experience.

Those who have been in the habit of using the combined bath should, in changing to the separate, be careful to closely follow the directions given with their paper. The combined bath may be so greatly abused without showing

any immediate signs of protest that its users are apt to get careless. A friend of mine, whom I persuaded to try the separate bath, complained the next time I met him about his prints being covered with pale green blotches. The prints appeared to have been insufficiently washed. But he assured me that they had been washed an hour in running water, and I was at a loss to account for the trouble until I found that he put his prints to wash under a faucet and gave them no further attention until the washing was finished. This plan worked all right with three or four prints, but he did not want to waste time toning so few in the separate bath, so he waited until he had twenty-five or thirty. That was right, and had he kept the prints in motion during the final washing he would have had no trouble. This he failed to do. As the prints soon settled to the bottom of the tray, the water surrounding many of them remained practically unchanged. The result was that fully two-thirds of them were ruined.

Those who use developing paper seldom have troubles of this sort, but they often have a hard time to get the correct exposure. The manufacturers usually advise the testing of each negative by printing and developing a narrow strip of paper. This, indeed, is the only safe way until one has sufficient experience to see at a glance what exposure a negative will require.

The strength of daylight varies so greatly that it is much better to print by some artificial light. It does not matter much about its source. It may be a candle or an electric arc, but the printing-frame should not be held too close to the light, as the center may receive more light than the edges. A foot from the light is a safe distance if the negatives are not larger than 5 by 7. A good plan is to print your densest negative at that distance and when you have found by testing how long it takes to print, use that as a "standard" printing time. The thinner negatives may be printed in that time by simply moving them farther from the light. By this plan much testing will be saved. When once

the proper distance from the light is ascertained, it should be recorded in the book you *ought* to keep to record everything of interest about every negative; or it may be written on the film of each negative with a lead-pencil.

In following this plan, it is well to remember that the strength of light decreases in the same ratio that the square of the distance from its source increases. If three negatives are placed respectively one, two and three feet from the light, the second will receive one-fourth as much and the third one-ninth as much as the first.

Another trouble that all amateurs have is to keep their collection of pictures intact. "The only way I could keep my prints would be to paste them onto the house," an amateur said to me not long ago, "and then I'd be afraid my friends would tear off the boards and carry the house away in pieces." Besides this, where one has a large collection of prints, whether mounted or not, they are not easily handled, and it is quite impossible to keep them in order. Of late albums have been getting quite popular, but their expense keeps them out of the reach of many. An excellent plan is to make your own albums by printing each picture on a sheet of paper somewhat larger than the negative, leaving a white margin all around the print, and binding them together between stencil-board or even bristol-board covers. For 4 by 5 negatives paper not smaller than 5 by 6½ should be used. This will give a little more than half an inch of margin all around the print, with an extra half inch at one end to be used in binding. At the wide end three holes should be punched, so that the prints can be laced together with a shoestring or ribbon.

Albums made in this manner are not so bulky nor expensive, and in my mind are much neater than anything you can buy.

J. EDGAR ROSS,
Healdsburg, California.

[We would repeat that Mr. Ross desires those having troubles of their own photographically to write to him at the above address, and he will deal with the matter in his articles.—Ed.]

PHOTOGRAPHING IN ALASKA.

There is some controversy as to the merits and utilization of glass plates and films in amateur photography. The writer has been interested in the art since the evolution of the old wet process, both in this and foreign countries, including South America, Alaska and the Northwest Territory. In a recent trip to the latter, which embraced the Yukon gold fields, the trip to Dawson city overland consuming four months, a good supply of fresh 5 by 7 films was laid in previous to departure from the States, it being the intention to make exposures en route and send them out as opportunity offered.

As the journey was on foot and dog sleighs, one will readily appreciate the importance of reducing to a minimum the weight and bulk of supplies. Several rolls of films were sent out, and others were developed at our journey's end with anything but a satisfactory result. Owing to the long lapse of time (four to eight months), the films were found to be practically worthless. Almost without exception they were ruined by age, and streaks showing unmistakable signs of decomposition. Our disappointment was great, to say nothing of the loss of time and money.

An opportunity offered in Dawson for the purchase of a case of 5 by 7 glass plates, for which the neat sum of \$60 in gold was paid (some commercial, far-sighted party having taken with him as merchandise a few cases of Seed's dry plates). We used the plates in the interior and on the way out to the States with gratifying results. Plates exposed from four to six months responded to the chemicals readily and produced beautiful negatives. It is thus apparent that for long journeys there is no comparison between plates and films.

Advocates of films lay great stress on ability to load the camera in daylight without requirement of a darkroom, and on this account give preference over plates. To one accustomed to roughing it and improvising for necessities, the question of loading plateholders is quickly solved. By spreading a pair of blankets one can handle the plates un-

derneath without fear of fog, and in like manner return them to their original boxes after exposure, with assurance of having something to show for the energy and time expended. And one is more than repaid for the extra expense incurred in the transportation for plates, to say nothing of the convenience and ease of handling plates in the darkroom and in the printing of pictures, as they are less apt to frill in warm weather, and curling is out of the question.

J. B. WICKERY,
New York, N. Y.

A BIRD OF THE NIGHT.

Have you ever camped in the wilderness, far from human habitation, and heard, weirdly echoing through the ebony forest aisles, the lonesome call of some feathered, flitting shadow of the night? And turned over in your blanket, wondering, and perhaps shivering at the unfamiliar sound?

If you have you have then heard the note of a bird that differs from the one that you will now hear about.

My bird makes pictures at night, and not noises. It is a characteristic of which it has hitherto been unsuspected, although it has long been favorably known as a daylight worker.

This bird is a liquid bird of the canary order of complexion. You rub it on cloth or paper and dry it there. When the cloth or paper is presented to sunlight behind a negative, a beautiful positive picture is quickly formed — and it is a permanent one.

Lots of people know about working it by sunlight, but now comes the fresh and startling information that it works just as well by arc electric light as it does by daylight.

Isn't it a bird?

Yes, Sensitol is surely a bird — a little, canary-colored bird.

The possibility of making Sensitol prints by arc light opens up a new field for that popular sensitizing solution, for it provides a way for its use as an enlarging medium.

Now when we want to make a large Sensitol print from a small negative, we

are no longer forced to first make an enlarged negative and then a contact print, but can at once place the negative in an enlarging lantern, turn on the current and watch the picture print out. And it does not take very long. Last week I made a good print in five minutes with the sensitized cloth stretched out four feet from the lantern. This is much quicker than printing out-doors on a dull day, and quick enough to put Sensitol in the front rank for enlarging purposes.

Frank V. Chambers, of Philadelphia, gave me the tip, and he had just made an enlargement on canvas, 3 by 7 feet, from a small negative.

I. N. COGNARI.

FROM the California Camera Club we have received a copy of the catalogue of the first salon held under its auspices. From it we find 475 prints were hung, a more generous showing than has been given in any salon in this country. About three dozen of them are reproduced in the catalogue, by which we see that the jury has been much more catholic than recent ones elsewhere have been.

"POCKET KODAK PORTRAITURE" is the title of one of the neatest and most instructive booklets that the Eastman Kodak Company has issued for some time. It contains no less than sixteen portraits by Rudolf Eickemeyer, Jr., all good, and tells how he made them with a pocket kodak. The booklet can be had for the asking and if our readers don't ask, the editor will be much surprised that they can be so slow.



CONDUCTED BY FRANK H. BALL AND GEORGE J. FOWLER.

INSTRUCTORS OF MANUAL TRAINING, CHICAGO.

SOME INTERESTING SUBJECTS.

Our observation teaches us that children naturally are more fond of making things to give to the different members of their family than to choose models designed for their own use exclusively. If the product of their efforts is properly appreciated and used at home this valuable and important trait in the child is nourished and develops into a most noble and desirable characteristic. But it is sometimes the ruination of character to lay the child's work on the shelf, or put it away in a bureau drawer because it is not made as nicely as we think it ought to be to find a place in our homes. It should be remembered that it is the very best effort that the child is capable of at the time and should be used for what it was intended. It will be only a short time before the child will become ashamed to see his own poor workmanship around, but still it should remain

until the child is tempted to make a better one.

Small articles for use on a writing desk are always interesting to the child because they appeal to him as something that will be of use at home, and we will give from time to time a number of desk

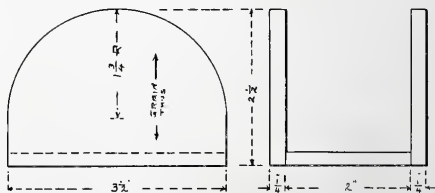


FIG. 1.

FIG. 2.

LETTER RACK.

furnishings that have been especially popular.

The letter rack shown in Fig. 1 and Fig. 2 is for unanswered letters and gives another application of the use of the compass. The form is not unlike

the common book rack, only much smaller. The stock should be not over $\frac{1}{4}$ inch thick by 4 inches wide and 8 inches long. A working edge is planed first, the width $3\frac{1}{2}$ inches is then measured and the other edge planed to the line. Both ends are next to be sawed square with the back-saw, using the bench-hook.

The radius for the curves is of course equal to one-half of the total width or diameter and may be found either by the application of arithmetic, dividing the width, $3\frac{1}{2}$ inches, by two, or by repeated tests with the compass, placing the needle point as near the center of the width as the child may be able to judge the distance across, and the compass set from there to one edge and swung around to find whether that center is the same distance from the oppo-

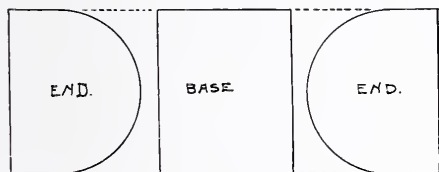


FIG. 3.

site edge. If not, the center and the radius are changed until correct.

The semi-circles are then drawn so that the curves will be $2\frac{1}{2}$ inches from each end of the piece (see Fig. 3) and lines are squared across the middle portion of the stock, outlining the bottom piece; thus all three pieces are marked before they are sawed out.

The end pieces are now sawed out with the coping saw, being careful to cut on the outside of the line—that means to saw as nearly to the line as possible and still leave the line on the end pieces. The pieces are then to be filed to remove the saw marks and the care should now be to work exactly to the line. The bottom piece is sawed out with the back-saw, using the bench-hook, for the reason that it is much easier to saw to a straight line with the back-saw than it is with the coping saw. All the pieces are made thoroughly clean with sandpaper stretched tight around a scrap of wood, and then they

may be glued and nailed together, using $\frac{3}{4}$ -inch brads.

If the sides are to be decorated with chip carving or pyrography, this should be done before putting together.

A simple and useful pen-rack is shown in Fig. 4. The stock required to make it should be $\frac{1}{4}$ inch thick, 3 inches wide and 10 inches long. A working edge is the first thing to get,

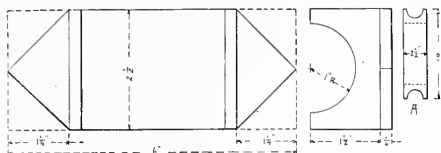


FIG. 4 — PEN RACK.

as for everything else. The width, $2\frac{1}{2}$ inches is next marked and the other edge planed to this line. Square both ends with the back-saw, using the bench-hook. Find the center at both ends and draw the semi-circles as shown at A, Fig. 4, with 1 inch for the radius.

Saw out around these curves just outside the line with the coping-saw, and file to the lines, making them smooth. Saw both ends off as indicated by dotted lines in A, Fig. 4, which are $1\frac{1}{2}$ inches from the ends of the stock, using back-saw and bench-hook. These are

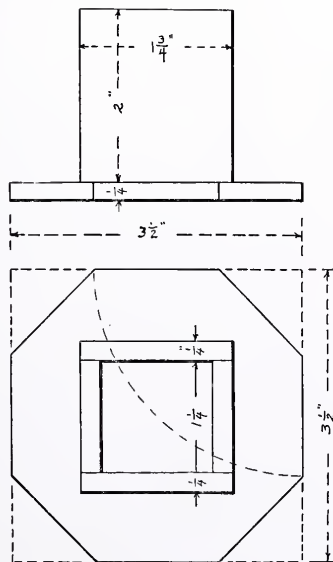


FIG. 5.—TOOTHPICK HOLDER.

for the upright pieces. The base piece, which is to be 6 inches long and pointed at both ends, is to be made from the remaining stock. The points are to be sawed with the back-saw and smoothed with the plane.

The reason for cutting out the curves before the small pieces are sawed off is to avoid splitting them, which is almost sure to result if the child attempts any other way.

The toothpick holder shown in Fig. 5 is also suitable for a matchbox. The drawings show two views, one looking down on the top, which is always called the plan, and the other a side view. It will be seen that the upright sides of the box are made of two pieces of $\frac{1}{4}$ -inch stock $1\frac{3}{4}$ inches wide and 2 inches long and also two pieces $1\frac{1}{4}$ inches wide and 2 inches long and that the box is square.

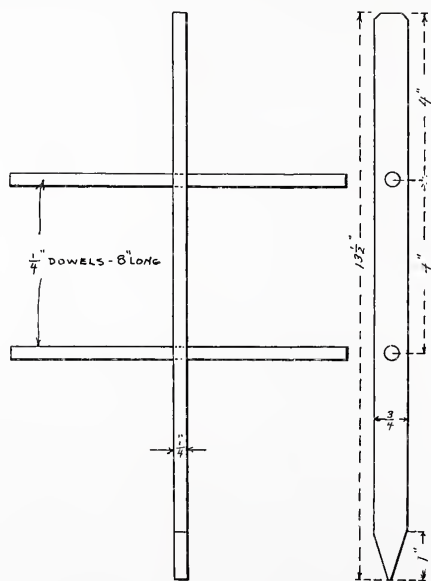


FIG. 6.—FLOWER TRELLIS.

The base presents a new problem, that of an eight-sided figure called an octagon. To make this, first make the board $3\frac{1}{2}$ inches square, as indicated by the dotted lines; then find the center of the square, which may be done by drawing lines across from corner to corner. Then place the needle point of the compass at the upper right-hand corner and

open it until the other point is at the center of the square and draw the curve shown in the drawing by a dotted line. This will mark the points at the edges where the corners are to be sawed off. Place the compass on each of the four corners and draw all four of the curves in just the same manner and draw lines showing where all the corners are to be cut off. The ends of these lines will strike the edge of the board in just the same place that the curves do. Saw corners off with back-saw, using the bench-hook. Sandpaper the pieces all over and nail the box together and nail the base on from the under side.

The flower trellis is intended as a very simple planing and boring exercise. If the holes are not bored at right angles to the face of the upright pieces of dowels will not be parallel. This model is given in the spring, when there is a use for it. The upright piece is of $\frac{1}{4}$ -inch or $\frac{3}{8}$ -inch stock, $\frac{3}{4}$ inch wide and $13\frac{1}{2}$ inches long, or it may be made longer and have more crosspieces if desired.

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Negative by Adam Diston,

GLOAMING.
(Made about 1882.)

Leven, Scotland.

THE PHOTO-BEACON.

EDITED BY F. DUNDAS TODD.

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APRIL, 1901.

No. 4.

REMOVAL NOTICE.

Ever since its origin THE PHOTO-BEACON office has been located in the Tribune building, Chicago, but sometime during the present month we will be compelled to move, as the building we now occupy will be torn down on May 1. We have secured capital accommodations in the Security building, situated at the corner of Fifth avenue and Madison street, and as we have felt rather cramped during the past year or two we took care to see that our new space will be double that of the old.

THE LATE H. P. ROBINSON.

When I planned my trip to Scotland a couple of years ago I so arranged matters that my wife and I would be present at the British convention, one of my principal reasons being that I was very anxious to meet, in the flesh H. P. Robinson, with whom I had carried on an occasional correspondence for about ten years. I had read all of his books on art principles as applied in photography at least a dozen times, and felt that I was his debtor for practically all I knew on the subject and for many a pleasant hour and day that I love to look back upon. When a man feels that way it is most natural to want to meet the man in the flesh, and I wanted to meet Mr. Robinson more than any other man in the photographic world.

So in the dining-room of the hotel at Gloucester I approached the table where Mr. Robinson sat with his wife and son, held out my hand to him and re-

marked: "Will you shake hands with a Scotsman, Mr. Robinson?" Like a shot came the reply: "Yes, if he does not come from Chicago." I had to acknowledge I came from that much maligned city, but he shook hands with me all the same, made room for me and my wife, and thus began my personal acquaintance with him and his family.

We found them most delightful people and for four days we kept very close together. Although Mr. Robinson was then in declining health and had again and again been very low, he seemed to be enjoying life to the full, and it was an education to us younger people to see how a man of his years found everything around him a continuous source of pleasure. Nature seemed to him an open book, and every minute he discovered in it something that demanded his attention, and thus he went through life enjoying the delight of something new all the time.

One of his remarks to me as we were parting struck me very forcibly. I was talking about the beneficial influence that his writings had had upon photography and photographers, and he said: "My greatest satisfaction lies in this—I have been in close touch with three generations of photographers and I think I have always had the respect of them all." He certainly did, for as a workman he was willing that everybody should know his methods, as an artist he was intensely human, as controversialist he was persistent and incisive, enjoying the fight for its own sake, but always respecting, generally admiring,

his opponent — in fact, under obligations to him for the good time he was having. Then in private life he was so genial that even those who had crossed swords with him could only love him.

I need not tell of his early history, of the difficulties he had to face and surmount, for he was in this respect as other men, of how he had to struggle to eke out for many years a precarious existence. Even when his prospects were blackest he tried no tricky schemes, but honestly endeavored to realize his pictorial ideals, and when at last he found recognition and business came generously, he was still the same conscientious worker.

But it was as a writer of exceedingly clear and sound books on the artistic principles applicable in photography that he did the most good for the art. In this he was a pioneer, and though most of them were written forty years ago, they are standard today.

Mr. Robinson had passed the three score years and ten. He had filled up the allotted span of years, but he was one of the few men who had seemingly finished his life's work. He had done much for the good of his fellow men, but I feel that his closing years were not burdened by the thought, There is something I might have done but did not. His ambitions were all realized, his work was done, so he pleasantly spent the twilight until it was time to sleep. This was on February 21, 1901.

F. DUNDAS TODD.

FUZZINESS.

Were I to print all the letters that have reached me during the past two weeks on this topic I could get out a journal whose bulk would be equal to a year's volume, and so I have had to content myself with giving but a few selections from both sides. Were there no tides and no storms the sea would stink; it is constant agitation that keeps it pure — so with everything else. Stagnation is death, agitation is life, and if art photography is to progress we can not have too much discussion and agitation. Personally, I dearly

love a good going squabble, and in the meantime I sincerely regret I can act only as umpire. As such I can only say, go ahead and have it out. I will endeavor to give a fair field and no favor.

F. DUNDAS TODD.

21 SOUTH PROSPECT STREET,
GRAND RAPIDS, MICH., March 4, 1901.
Editor PHOTO-BEACON:

DEAR SIR,—I have received the first three numbers of your magazine for which I have just subscribed, and I can not refrain from expressing to you my appreciation and delight over their contents.

I have been looking for some time for a magazine that should be in sympathy with pictorial photography, and I am glad to have found it in THE PHOTO-BEACON.

The beautiful plate by Mr. Wilde, entitled "An Autumn Morning," is alone worth the price of the subscription to me. If that be a fuzzy type, then give me the fuzzy types!

Are the back numbers containing the articles by Mr. Hodges, referred to in Mr. Wilde's letter, still to be had, and if so, at what price?

Very truly yours,
ELEANOR W. WILLARD.

PATERSON, N. J., March 8, 1901.
Editor of THE PHOTO-BEACON:

DEAR SIR,—Though only a mere private in the army of amateur photographers, I have an ever-increasing interest in THE PHOTO-BEACON—its articles and pictures alike. My wife, on the other hand, not being even a camp-follower — a button-presser — is satisfied with a mere peep, from month to month, at the pictures.

Her positive dislike of things photographic is caused, I fancy, by the oft-times mussy condition of the family bathroom.

The other night, however, much to my surprise, I found my better half reading your March number, which had that day come to hand. In answer to my query: "How's this?" she said: "Oh, I thought I'd read this one article, 'Fuzziness,' but there isn't a word about

fuzziness in it." It reminded her, she told me, of a lecture she heard years ago in New York by Artemus Ward. The subject was "Ghosts," but not until the

said. It seems that she had been inspecting Dr. Detlefsen's prize picture when her eye caught the title of your editorial on the opposite page, and she



Negative by Dr. F. Detlefsen,

Chicago.

A JUVENILE TRAGEDIAN.

concluding sentence did Artemus mention ghosts, and then only to say that he would lecture on ghosts four weeks from that date in San Francisco. "But there isn't even a promise here," she

commenced to read it with a vague idea that it had something to do with the picture. I hunted up the January number containing Mr. Wilde's confessedly fuzzy picture — not a difficult thing to

do, seeing that my BEACONS are all hid away for safe keeping — and I gave her a summary of that gentleman's explanation, namely, that it is a picture of a scene, not as his lens saw it, nor as she or I might have seen it, but as *he* saw it. She remarked that if he certified to its correctness as that, she didn't see what the "shoal of readers" had to complain of. "What I want to know," said she, "is why did *Dr. Detlefsen's* picture get the first prize?" I promptly made answer that that was because it was the best picture. She wanted to know wherein it was better than the second prize one, wherein the latter was inferior to the former, and so on. I talked as authoritatively as I could of breadth, atmosphere, color-values and tones, but her woman's intuition told her I was but talking, and she intimated that my fine words signified nothing.

Thus discredited, I fell back on Mr. Wilde's explanation, and said: "Well, it's a picture of Dr. Detlefsen's child as *he* saw it." But, although this explanation had been satisfactory to her, apparently, in the case of Mr. Wilde's landscape, she would have none of it when applied to Dr. Detlefsen's portrait. With a touch of indignation and a sneer she exclaimed: "He saw his child fading away like that!" "Saw her as through a glass darkly, I suppose." "Would you pay money to a photographer for a picture of your child looking like that?" I was on the point of saying that it wasn't my child; that, as she knew, my child never looked like that, but, remembering that even in an argument discretion is the better part of valor, I refrained. The bright idea occurred to me — write to the editor; he can, if he chooses, make all things plain.

So believe me, Mr. Editor, out of the depths of my ignorance, which, like many of my negatives, is all too dense, and in all seriousness, I ask you to point out in your lucid style, which the way-faring man, though he be a fool, can always read and understand, the superior merits of the first-prize March picture. Not for a moment do I question the judges' decision; on the con-

trary, I assume that the decision was a just one. My prayer, like that of Ajax of old—and he, I think, must have been a photographer in embryo—is for light.

I am, Mr. Editor, very respectfully
yours, WM. B. GRAY.

358 WEST SIXTY-NINTH STREET,
CHICAGO, ILL., March 5, 1901.

F. Dundas Todd, Tribune Bldg., City:

MY DEAR SIR,—During the past year or more I have been reading with a great deal of interest your articles published in THE PHOTO-BEACON and other periodicals upon "Fuzziness." I have felt like saying as Will Carlton's schoolmaster's guests did, "Them er's my sentiments tew," and yet I do not wish to be mistaken for one of the *f* 64 cranks who advocate microscopic sharpness over the entire picture. Such crankiness, in my opinion, is as far in one direction from art as these fuzzy productions are in the other. If I have an idea, and I seldom take a picture without having one, I wish to emphasize that idea not only by giving it an important place, but by focusing more sharply upon it than upon the other objects to be included in the composition. Roundness and breadth I strive after, and above all I try to get pleasing tone values. But with a fine lens and a large stop these can all be secured without sacrificing detail where detail is desirable.

In the first-prize picture published in the January issue of THE PHOTO-BEACON I can see a great deal of merit in spite of the fuzziness. But it is so blurred that it is painful to my eyes to look at it. If I hold it a great way off I squint and try to focus my eyes on it, and feel that I must try a nearer view, and when this is tried I am compelled to step away, still unsatisfied. Then again, there have been a number of prizes awarded a certain doctor who professes to have been much influenced by the work hung at the last Chicago Salon. And indeed his work shows that influence. But why such work should be awarded prizes when what you have said personally and what has been published in THE PHOTO-BEACON is distinctly against such rot, I can not under-

stand. Personally, I do not care, for I did not compete and am not disappointed. But I am led to believe that the circulation of THE PHOTO-BEACON is large and that its influence is correspondingly large. And if such work can win its prizes, what will be the result? Photographers who care for honors will endeavor to make the kind of work that seems to please, and the class of work will grow worse rather than better, because of these competitions.

When will we cease following every will-o-the-wisp? It is claimed that these productions represent nature, not as the eye of the camera sees it, but as the artist's eye sees it. In that case I would suggest a pair of spectacles.

In conclusion I can not express myself more clearly than by quoting your words from the 1901 International: "I don't want to see mysterious, invisible products that are artistic, because they leave so much to the imagination. What's the matter with a sheet of white paper, that would leave still more to imagine? . . . I want to see a picture where the photographer put brains into the negative and settled all about composition and lighting and values before he looked upon the ground glass." I am yours faithfully,

CLAYTON W. MOGG.

2165 NORTH RURAL STREET,
INDIANAPOLIS, IND., Feb. 11, 1901.
Mr. F. Dundas Todd:

DEAR SIR,—It was with pleasure and no small amount of satisfaction that I noted Mr. Ketcham's letter of criticism in the February issue of THE PHOTO-BEACON.

I was so bewildered by a number of the "masterpieces" exhibited at the Chicago Salon last year that I had felt I could not summon up the courage to enter a protest against the large number of blurred and often unrecognizable photographs that grace our exhibitions, winning prizes in contests and congratulations from editors and critics.

But since your correspondent has broken the ice, so to speak, I have been led to think there are at least a few

others in the boat with him, and I, for one, shall take an oar and lend what assistance I am able. And I venture to say if a roll was called it would be found there was a large fleet following "Admiral" Ketcham.

I also do not mean to pose as a critic, for I feel that I have only mastered the A, B, C of art photography, but, notwithstanding, when I look at a photograph I instinctively feel a desire to see something without looking at a fuzzy or blurred mass, possessing only the outlines of a picture, and be left to form the remainder from imagination.

Take, for example, the figure of the man in the photograph to which Mr. Ketcham refers. I could not say from looking at the picture whether he is a white or a colored man, and whether he is pulling cornstalks or picking a burr from his shoe, though it looks more like the former; yet who ever heard of a man going into a cornfield and pulling cornstalks in the autumn or any other time of the year? So I suppose I will have to guess again.

I admire the writer who said at the conclusion of his article on focusing, in one of our magazines recently, that "a photograph can never err if it translates a scene as the eye sees it."

What would any one think, whether a novice, critic or judge on photography, if he should begin to discover that he could only see figures and landscapes as this one is pictured, together with a great many otherwise good photographs that are often found courting prizes at exhibitions, and occasionally reproduced in photographic magazines? As for myself, I know that I would be frightened nearly to death, for I would feel that I was fast approaching total blindness.

I beg to remind you, however, that I am not aiming my criticism directly at Mr. Wilde, nor his work, for his, I feel, is a vast improvement over many of the photographs flaunted before the eyes of general photographers, as high standards of excellence because of the artistic merits they possess. But why give them this prominence and admiration? However artistic they may be, if they are

lacking in detail why not cast them aside and advise the photographer of his error? I feel that artistic photographs devoid of detail are worthy of no more consideration than those full of detail but lacking pictorial qualities, since both constitute errors—the former a deliberate one, while the latter indicates a want of ability, for certainly one who has advanced sufficiently that he can produce artistic work, is able to go a little further—or backward, rather—and also add detail, for I have yet to know of the artist photographer who intentionally deprived his work of the qualities necessary to constitute a pictorial photograph.

By the result of his work he is conceded a more elevated position in the sphere of photography, yet his work should maintain the high standard of excellence to which he aspires, or invite criticism as the work of the beginner is accorded.

Give us artistic photographs always, but I trust the day is not far distant when photographers and the public will accept indistinct photographs at what they are worth, and will not be so far led away in their blind admiration for the artistic that many appear to be at present.

Yours truly,
ALBERT H. TOLIN.

141 E. WASHINGTON LANE,
GERMANTOWN, PHILADELPHIA, PA.,
March 8, 1901.

Mr. F. Dundas Todd:

DEAR SIR,—The March number to hand and congratulate you on the production. The marvelous difference from an artistic standpoint between the present number and one of two years ago is convincing proof, if any there need be, of the rapid strides pictorial photography is making.

As you have invited further ideas on the question of "fuzziness," I hope there will be a generous answer to the invitation. It would be far more pleasant for me to hear the ideas of others than to defend my own work; that is always a delicate matter to do, and while I could express my opinion on the why and

the wherefore of a given thing, taking as its base the pictorial side, the same expressions where my picture is concerned would have the appearance of conceit.

Here is where I think we will generally find why the artist (all other things being equal) prefers the "fuzzy" type; he is simply applying the same rule to his photograph as he would to his painting. He is disappointed with the clear outline and wiggling detail given by the lens, knowing that does *not* represent what his eyes have been trained to see and that when seen at a distance (and here let me remark that I am always taking for granted the picture is criticized while hanging on the wall, not while being held in the hand) that detail and sharpness only tends to weaken his picture, and that a few touches of his brush, although apparently having no form when held close to the eye, gain in power and form when seen at a distance.

To sum up, I think we shall find if we study the matter carefully, that as artists look more to outdoor work, instead of the studio, their work broadened in effect, it was this school which first gave us *atmosphere*, and speaking as an artist, I fail to see how he can produce any round object with a hard outline and not lose our sense of atmosphere, which quality, anyway to the landscape artist, means so much.

Now how far we are to carry that softness of outline depends largely on the subject we wish to represent, the distance that subject is from the eye and the effect we wish to produce. Personally I should not hesitate to use it up to any extent to gain my desired end, *so long as I have not destroyed structural definition*. I have no use for rank impressionism; I want my houses to look like houses, my trees like trees, and my portraits as though they are flesh. If structural form is so destroyed that it is impossible to tell cloth from flesh or background, wood from grass, why then I should consider that I had failed in my intentions.

Now, as all effects have a cause, and all our work should be based on natural laws, let us consider on what we depend

for our form when rendering a subject in monochrome. If we attempt to represent a round object by outline only, that form is naturally represented with a *hard line*; what roundness it is possible to produce must depend on perspective; but this is surely not pictorial, it is only the student's lessons to thoroughly master form. Would we think of placing this same *hard outline* around our object after we have represented it in light and shade? I think not. Now when we use light and shade to represent our round object we find at once that *we are depending on the shadows and half-tones to give us our form*, the edges of our round object are always soft. We are now gaining the appearance of structural solidity without *hard outline*, and at the same time producing more roundness in our object. And as we go still further and wish to convey the idea of *atmosphere and distance* as well as the roundness we have already got (and to my mind this is the key to the whole situation), why the farther away we are

from our object, or the more atmospheric effect we wish to produce, naturally the softer that outline will become.

Hoping to find that some of your readers will have taken the matter up in an abler form than I am able to do, believe me,

Yours very sincerely,
ARTHUR W. WILDE.

Mr. F. Dundas Todd.

Editor THE PHOTO-BEACON, City:

DEAR SIR,—The picture of a child, which was awarded first prize in the March PHOTO-BEACON, is a surprise to me.

I have read your valuable journal for over two years, have studied your "At Home Portraiture" and Mr. Inglis' "Artistic Lighting," besides several other good works on the same subject, but I have never seen such a picture as that advocated as a good portrait. According to these instructions the aim is to get a clear-cut picture of the subject, with fine gradations in light and shade;



Negative by George M. Crane,

THE OLD CASTLE.

St. Andrews, Scotland.

Los Angeles, Cal.

and the nearer you can get that picture to represent the original, just about to speak to you, the better the picture is supposed to be.

But that is just plain photography; and the artistic (?) side seems to be different. According to this picture the artist (?) should get his camera out of focus and then be careful to fog his plate evenly in development; then you have an artistic picture, even though you may not be able to recognize the person whom it is supposed to represent.

Mr. Editor, if you took one of your children to Mr. Inglis for a portrait, do you think he would turn out such a picture as that and tell you it was a good picture? I think not, and even if he did, I think your own judgment would tempt you to throw it at his head and leave the studio in disgust.

I have never entered any of your competitions, but had intended to do so during the coming summer; but I will say now that if this is the class of work that is to be awarded first honors, there is no use for me to submit specimens, as I should never send in such a print as that.

As a business proposition, I think that the photographer who exhibited such work to prospective customers would have plenty of leisure to study the artistic side of his business, without any annoying interruptions from inartistic people who might desire to have good portraits made of themselves.

Yours truly,

E. E. JOHNSON.

FUZZY PICTURES AND FUZZY CRITICISM.

MY DEAR MR. TODD,—For about three years I have had the pleasure each month of officiating as one of three judges to select the prize-winners in THE PHOTO-BEACON contests, accordingly have "had coming" one-third of the criticism from unsuccessful contestants. The pleasure and education derived from my duties have, however, fully compensated me for both the labor involved and the criticism.

Certain articles appearing in THE PHOTO-BEACON would indicate some

readers do not fully appreciate your position or that of the judges. It is well for them all to know that you have never in any way endeavored to influence the decisions—in fact, have seldom seen the contesting "pictures," until the awards had been made. The judges have no acquaintance with the prize-winners of the past three years, and the names are not known until after the award. No awards could be more absolutely impersonal and impartial. Some are made in spite of "fuzziness," many regardless of sharpness. Frequently the task is the elimination of the worst rather than the selection of the best, and in many cases a healthy disagreement between the judges causes the selection to be by majority rule and not unanimously.

It is to be regretted that the pictures can not be more perfectly reproduced; only those who have had experience can realize the great loss in delicacy and tone value, and the increased softness or fuzziness unavoidably incurred.

The first award in Competition No. 32 seems to have created more discussion than usual, some interesting and instructive, much regrettably intolerant. As the "twelfth juror" on that award, I would say that I was "persuaded, but not convinced," that the general merit of the picture was sufficient to compensate for what seemed to me over-fuzziness.

The original print certainly had much to recommend it, but to the writer it was painful to the eyes unless viewed at several feet distance and no effort made to grasp the details, when the painful fuzziness was to a great extent overcome, the excellent massing of light and shade "felt" and the motive of the maker appreciated.

Each artist produces works of varying merit. With most amateurs the larger quantity are apt to be below par. They certainly do produce work of exceeding merit, some by accident, some by design. Many, due to accident, fail. The technical difficulties being many, an accident in some branch prevents the successful accomplishment of their meritorious conceptions.

The critical examination of several

thousand photographic prints has undoubtedly tended to develop tolerance, and while unable to appreciate the beauty of fuzziness for its own sake, I concede that the shortcoming may be in myself. Some unfortunates are color-blind, while some sensitive eyes discern the green shadows under the summer foliage. To some, defective sight (or indigestion) makes all nature fuzzy. Possibly those who devote life and training to *art* are enabled to see more truly and feel more keenly than the less experienced. It is noticeable that among my associate judges (there have been several), those trained to brush or pencil invariably lean strongly toward the fuzzy, while those "educated" with the camera are divided, but the large majority inclined toward good focus.

The opportunity to observe these tendencies has been extended to many "critics," who, after the contest, have come in "to look over the pictures." The most intolerant anti-fuzzers are, as a rule, those who excel in technical work.

He who excels with brush finds greatest merit in that character of work nearest to his own. He who lacks breadth and excels in technic leans toward his specialty, and can not see a "soft" picture, it must be either in good focus or "fuzzy." The gulf between the trained musician and he who can not distinguish between the simple melodies, is no greater than the divergent view-points of individuals regarding "art." "Photographic art," and the distance between, represents all shades of opinion. Is it not possible each may have some truth and none all, and that the extreme intolerance exhibited by many "anti-fuzzers" is only in line with the lofty, aggravating "I holier than thou" spirit displayed by equally intolerant "fuzzers?" With no desire to enter the arena, I do wish to make a plea for tolerance.

In contest No. 33 the first award was for a little "poem in white." It is a pity all of your readers could not see the original print, the reproduction (probably unavoidably) is not much better

than a muddy caricature and must have caused the maker of the original print to tear his hair (if he has any).

The dainty, soft, dear little baby picture has lost its fine gradations of tone and delicacy of feeling. A delicate, soft print loses most in reproduction and in this case it was particularly so. If anyone who could look at the original picture, note the pose and not want to kiss that dear little round shoulder, peeping out above the drapery, or who would stop to question the sharpness of focus I fear is losing much of the beauty in life. The softness of the print was especially appropriate to the subject, the pose, and the tone of the picture, for picture it certainly is. The same treatment, however, would not suit some other subjects.

The second award was for a portrait sharp enough to suit the most exacting anti-fuzzee. The tone values, the delicacy and general technical excellence of the picture are indisputable. The two prints represent both the soft (not fuzzy) and the sharp treatment, and there were certainly in the many entries a sufficient number of both styles, to have awarded all of the prizes to either had the judges been prejudiced. For that matter there were fuzzy ones too.

There are many pictures in good focus of so great merit that no one can overlook them; also many fuzzy pictures that have points of great merit necessarily acknowledged by the unprejudiced. With a personal preference for a picture in good focus I have no desire to be able to "count the nail heads in the barn door," any more than to make my eyes ache trying to focus an "unfocusable" object. There is a happy medium and a necessary variation in the treatment of varying subjects and in my humble opinion those who grasp this fact and successfully apply it will make "good pictures."

If the fuzzy types are true art, a proper appreciation of them is to be desired and it should be the ambition of all students to arrive at the truth, which is not likely if intolerant abuse be substituted for interested investigation and friendly criticism.

The lens sees more than the eye, for it sees all the detail of the picture all the time, but is it not equally true that in viewing the sharply (I nearly wrote properly) focused picture, we see in detail only such part as our eye temporarily dwells on, and it is necessary to look over the entire picture and gradually study its detail a little at a time, the same as would be necessary in the original landscape or other subject? When the eyes (properly focused eyes) are intent on one point they see it in detail and the surrounding objects are more or less hazy until the eyes are trained on them, when each point in turn springs into prominence and acquires sharp detail. This being true of both subject and picture why is not the lens in good focus the proper interpreter? The picture thus produced is in sharp focus to the observer only at the one point he fixes his gaze and is not this true of the original subject?

Not being controversially inclined, I shall now draw into my shell and leave your many readers to enjoy themselves over the pros and cons of "fuzzy types."

My own humble attempts in photography are so far devoid of fuzziness, and I hope to keep my mind equally free from the fuzziness of prejudice and intolerance, that I may be able to do full justice to your "contestants" for many months to come. Many of them seem like old friends; some who have never yet been awarded a prize persist in their efforts, and it is a genuine pleasure to note their improvement from time to time and feel that they are gradually approaching the goal.

Although there is a great variation in the average merits of entries of different contests, yet in a general way they show a *very* marked improvement since these contests were inaugurated.

ONE OF THE JUDGES.

A NEW DEVELOPER.

Hydramine is the very latest addition to the already numerous family of developing agents. The trade agent, as stated in his advertisement, will send a sample on receipt of a 2-cent stamp.

PICTORIAL COMPETITION No. 34.

It was with some little trepidation that we put lantern slides on the list of competitions, as in the past we found that but a very few took any interest in this very fascinating phase of the art. We were therefore not a little surprised to find nineteen slides sent in for competition, and we find that all in all they were very good. The judges tested them in the lantern and then made the following awards:

First Prize—C. E. Barr, Albion, Michigan.

Second Prize—D. H. Swiler, Harrisburg, Pennsylvania.

Third Prize—E. Williams, 1205 Michigan avenue, Chicago.

One competitor from Winnipeg would have been in the winning classes with some capital water studies had his technical work not been very imperfect.

FUTURE COMPETITIONS.

Competition No. 36.—Interiors. Closes April 30.

Competition No. 37.—Branch of a tree without leaves. Closes May 31.

Competition No. 38.—Domestic animals. Closes June 30.

Competition No. 39.—Genre pictures, or pictures that tell a story. Closes July 31.

Competition No. 40.—Branch of a tree with leaves. Closes August 31.

Competition No. 41.—"At Home" Portraiture, that is, portraits not made in a studio. Closes September 30.

Competition No. 42.—Snap-shot pictures. Closes October 31.

Competition No. 43.—Landscapes. Closes November 30.

Competition No. 44.—Flower pictures. Closes December 31.

RULES.

1. There is no restriction as to the number of pictures to be sent in. On the print there should be written the title and the sender's name and address, but nothing else. Accompanying, a letter or postcard should be sent us, giving full particulars of date, light, plate, stop

and exposure given; also the printing process.

2. Mark outside of package with number of competition. Ordinary letter rate must be paid where descriptive matter accompanies prints.

PRIZES.

First.—Books to the value of \$5.

Second.—Books to the value of \$2.50.

Third.—Books to the value of \$1.

Any books, on any subject, or if preferred, any article we can buy in Chicago.

LITERARY COMPETITION.

The following articles have been selected as suitable:

First Prize — A. L. Fitch.

Accepted (not arranged in order of merit) — Dr. Mayer, W. E. Dickinson, A. L. Dyball, Joe Hicks, M.D., Adelaide Beaty, Dr. Steele, F. A. Banks, Joe Slack, W. M. Rickert, Rob D. Stevens, L. C. Woodman, A. G. Graff, Nellie W. Crie, F. E. Foster, H. E. Humphrey, W. H. Monroe, Mrs. E. D. Griffin.

We have now enough matter on hand to keep us going for many months to come, so our contributors in this department had better take a holiday.

NO PUZZLE AT ALL.

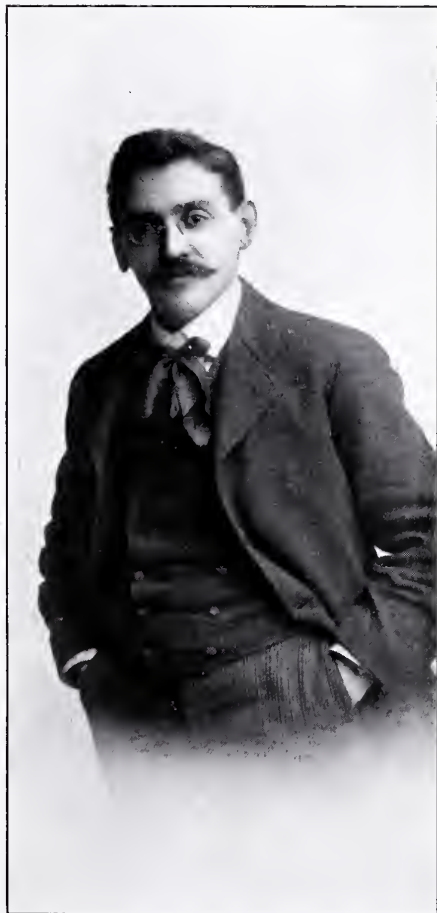
J. W. Barnett, Carrollton, Indiana, writes: "I want to thank you for the good I get out of your journal. What puzzles me is how can you give so much for so little. I have just received a sample copy of a photographic journal which comes at \$2 a year, and in comparison to THE PHOTO-BEACON it is a tallow candle to 'Bright No. 9.'"

Here is the solution. When circulation is small the preliminary expenses of each issue, consisting of literary matter, cuts and composition, amount to a very large sum on each copy, but if circulation be large then the cost per copy is small. It thus pays the readers of this journal to recommend it to their friends, for it enables the editor to spend more money on preliminary ex-

penses each month, and this means better value for the money to the reader.

SECOND CHICAGO SALON.

The Chicago Society of Amateur Photographers has decided to hold its next Salon sometime in the fall of the present year. The directors have determined that the Salon shall be run on artistic lines, irrespective of fads and foibles, and therefore will select as representative a jury as possible. One of the members will probably be chosen from the East, the other four from artists associated with the Chicago Art Institute.



C. F. KRAUSE.

PORTRAIT POSING AND LIGHTING.*

BY J. H. VANDERPOEL,

Head of the Department of Figure Drawing and Painting in the Art Institute of Chicago.

CHAPTER IV.**POSING.**

We have seen that figures suitably posed and placed lend balance, dignity

perfect parts can make a perfect whole. In an intricate piece of mechanism unless each cog, wheel, lever and spring is complete in itself perfect unity of action is impossible; in chemistry each ingredient must be chemically pure if the result is to be of scientific value; so, in a composition, each figure must be perfect



Negative by H. H. Pierce, Providence, R. I.

FIG. 21.

Specially noteworthy in this illustration is the air of ease and self-confidence of the subject. The general carriage of the figure expressed in the simple three-quarter view with the more full view of the head produced by a slight turn in the neck, gives a pose that is entirely suited to the nature of the man without violating any artistic principles.

and grace to a composition. But however well placed if awkwardly posed they are certain to detract from it. The whole is greater than the parts, but only

in its pose, it must compose well, possess balance, dignity, ease, grace, charm, etc., as the character of the sitter suggests one or more of these qualities.

* Copyright, 1901, by F. Dundas Todd.

This brings us to the consideration of the art of posing. No cause gives a photographer more heartaches than does this. Many of his sitters have an ideal whom they wish to resemble in attitude and bearing, or they may be very tall, short, stout or thin, may be loudly dressed or dowdy, may be so stiff that

The term "posing" is a misnomer, as it conveys the idea that an action or position is given to the sitter rather than taken by him. This suggests the distinction between posing and being posed; to pose is to affect or convey affectation, being posed may result in a position entirely free from affectation,



FIG. 22.

In this print the entire consciousness on the part of the sitter, if it were not for the assumed calm in the face, would suggest she was trying to raise the chair from the floor. The figure lacks entirely in unity of action as regards its component parts. The action of the right hand is very weak, as if to retard not only the falling of the opera cloak, but also the whole figure, suggesting the action of a drowning man catching at a straw.

the photographer can make nothing of them. Then he must be so expert, quick and keen that in spite of all these evident drawbacks he may catch his sitters at their best.

if the character of the sitter has been appreciated. Few photographers enter thoughtfully and intelligently into the art of posing. Most of them lament that their patrons are so commonplace

that an effort at artistic expression is so much waste of vitality, and they are therefore discouraged, and make no effort to improve. But is this excuse not a commonplace one used by every tinkerer in every profession and trade? If the photographer gives his commonplace sitters equally commonplace pictures he sinks his profession to the level of the lowest trade, but worst of all when a sitter with artistic possibilities comes his way he fails to recognize them. It is through grasping his real opportunities that his standing with his fellow photographers is determined.

That the patience and temper of a photographer is greatly tried is beyond all dispute. The average sitter selects a style of portrait without appreciating its merits or drawbacks, making no suggestions but giving orders in a manner more suited for the grocery store than for the studio. These discouragements can not be denied; but what professional man is free from them? Certainly not the portrait painter, for every relative and friend of his sitter must sit in judgment on the painting before it leaves the studio. So with the lawyer and doctor; even the clergyman can tell his tale of woe about his commonplace but equally pious parishioners.

The pose or action of a sitter must be true to his character—that is the first law of the art. The natural bearing and carriage of the man must be observed and retained irrespective of the disposal of the various members of the body. We often recognize a friend in the distance by his bearing long before we can distinguish any of his features, and it is this individuality we want to show in a portrait. We must seek for the unity of character in action. In trying to avoid awkwardness in an ungraceful figure beware of the likely suggestion that each member of the body should have a pose of its own, as this is a very common failing, the result of which is a lack of unity of action in the parts. A good pose always suggests a harmonious action on the part of every member of the body. Sitters who are consciously posing can only affect the graces they do not possess, and

through very consciousness of self we find one part of the body doing one thing while the other parts are doing something else. In such posing there is no dominant thought expressed, hence no unity of action.

An unconscious person may not always be graceful or dignified, but the action will at least be consistent. Unconsciousness discovers the true self, and this is the true note in the art of posing. Therefore the photographer must try to get insight into the character of his sitters that he may suit the pose or action to it. Consciousness and awkwardness go hand in hand; unconsciousness does not necessarily mean grace, but an air of ease and dignity accompanies it.

But it may be argued that many persons wish to appear in their pictures other than what they are, but the ethics of the profession should not permit this class of people to control the photographer's artistic sense. He must, as a matter of business, give such people what they desire, but if he be faithful to his profession he will give them more, not of their kind, but of his. With this ideal constantly before him his own taste will advance so that when his real opportunity comes he will be able to grasp it.

Some anatomical knowledge is useful in the study of posing, as it enables one to understand the construction of the human frame, and shows how the disposition of the weight of the body acts and reacts upon the various members. This knowledge need not be very deep, as a little reading and careful examination of a few anatomical plates, such as can be borrowed from any doctor, is all that is necessary. The knowledge so acquired, guided by good sense, would soon eliminate stiffness on the one hand and contortions and acrobatic antics on the other.

The great object in posing is to lead the eye gracefully by means of lines or spots to the head and face; thus the final act of grace is the adjustment of the head upon the body. The leading interest in the picture should center in the head, and the eye should uncon-

sciously travel over the figure only to find the interest in the face. Any action so extravagant or attire so conspicuous as to detract from the head is highly inartistic, so both should be kept subordinate, and the thoughtful operator will use his utmost skill to attain this end. A standing male figure should be posed more quietly than a female figure, as it calls for less grace if not more dignity, though this may vary in degree according to the age of the subject. The standing pose is unfit for old people, exceedingly tall or short persons, as it merely emphasizes these characteristics. For the same reason an excessively stout person is better placed in a sitting posture than in a standing one, for it is a mistake to emphasize a marked peculiarity. The true portrait of a man should constitute a summing up of all his characteristics; if not his deeper nature will be hidden and the result can be only a caricature.

Rarely place a standing figure squarely before the camera, as it gives little projection, the human form being less deep than it is broad, and the image on the paper would simply be a repetition of the surface of the paper, or, as a painter would call it, the plane of the picture. This effect should be avoided, as it begets monotony. A profile is less objectionable because it presents less flatness of surface, conveys a feeling of more depth, has less symmetry and is apt to exhibit more character. For the average person a three-quarter view or approaching it is by far the best, for it simplifies the masses and offers greater variety in the lines.

BACKING PLATES.

QUINCY, MICH., March 11, 1901.
Mr. F. Dundas Todd, Editor PHOTO-BEACON, Chicago, Ill.:

DEAR SIR,—In looking over some old PHOTO-BEACONS a few weeks ago, I noticed a short article about using common brown paper and glycerin for backing. It seemed so simple at the time that I did not try it, but the recent articles about backing plates have interested me very much, and having no

other means of backing my plates at hand, I tried brown paper backing.

In my darkroom I have a few sheets of brown paper, cut the right size, and thoroughly saturated with glycerin, which are kept in a small tray, and covered up to prevent drying. When filling my plateholders I apply a sheet of this paper to the back of the plate, and roll it into perfect contact with a print roller, put plate into holder and there you are.

Before developing I peel the paper off the plate and place in the tray with the other sheets and use it over and over. It takes only a few seconds to put on and remove, costs next to nothing, and seems to me it would be very convenient many times when away from home, with no other means at hand, as brown paper and glycerin are to be found in nearly every home and could be used with very little trouble.

I find landscapes, with trees and reflections in water, are much improved by the use of backing, the trees standing out away from the sky, with all the fine twigs and branches showing, instead of being lost by halation. In his article in the March number Mr. Lamb mentions lampblack as a backing for plates, and I think it would be of considerable interest to have him describe his manner of preparing dry lampblack for backing.

I have not been able to find the distemper black.

I find many useful suggestions in THE PHOTO-BEACON and enjoy reading it very much. Think it would be interesting and instructive also to give the exposure, light, stop, etc., with the many fine pictures you reproduce, as you do with the prize-winners.

Wishing you much success, I remain,
 Yours truly,

E. M. SHAW.

[The method of backing described above is good so far as the avoidance of halation is concerned. But in this country another matter demands consideration and that is the septum in the plateholders. This is generally made of brown cardboard, which will buckle up if it gets damp. Now glycerin is very

fond of moisture, absorbing it readily from the atmosphere, therefore if any glycerin gets on the cardboard the plateholders will soon be utterly worthless. We have been through the experience and have three spoiled plateholders as the result. The Acme halation destroyers advertised in this issue by George K. Hazlitt & Co. are just as effective, but will not injure the plateholders. They are very moderate in price.—ED.]

DEVELOPMENT.*

CHAPTER I.

The editor tells me that I had better write as if I were instructing some one who knows nothing at all about the subject. Now, the difficulty is that most of my readers *do* know something, and that they have probably formed a mental picture of what development is and

ous obstacle to their even listening to me.

Let me therefore ask that for the time the old mental picture of the process be put on one side and that you, my keen-witted reader (for the sooner I address you personally, the better), are at least ready to follow my mental picture of what development is and how we can best control it.

THE PROBLEM.

You want to secure a photograph in which the lights and shades on the final bit of paper shall accurately reproduce the lights and shades of the subject before the lens. Turn over a page or two of this journal and you will find an example of what your subject might be. There is every gradation between black and white in the picture, so blended together and so broken up into small fragments that it is difficult to say "Here is a patch of full black, here a dark tone, here a light tone, and here full light or white." So to simplify matters I put before you an exceedingly simple subject in which only four tones occur, and there are good, broad patches of each of them.

It is a pyramid of wood painted white (Fig. 1), and seen against a background of black flock paper. And yet it does not appear all white. The light shines from the side, and one side only is represented by pure white. The farther side is in fairly deep shadow, and the front face is an intermediate tone, while the background is so black that it reflects no light at all to the lens. Now if I were on another subject, what a sermon on lighting I could preach on this simple block of wood, all white and yet presenting three distinct tones. But I must keep to my point, and it is that in every subject you may want to photograph there is a range of different tones, sometimes produced by the lighting, sometimes by the color of the objects, and that the four tones in the simple little picture before us may be taken to represent them. You have probably thought of the tones in a photograph as undefined and blending into each other, but let me ask you to keep

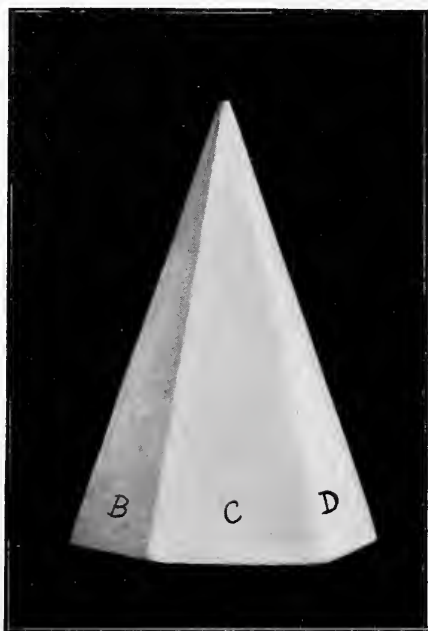


FIG. 1.

how it proceeds, which mental picture (from no fault of theirs) is so entirely wrong and so much at variance with what I have to say that it will be a seri-

* Copyright, 1900, by F. Dundas Todd.

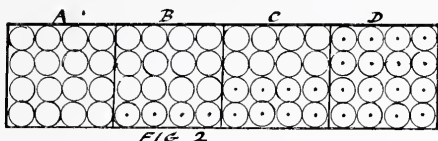
this picture in your mind and think of the different tones between white and black as well defined and distinct *steps* in the scale of gradation.

But we have only touched the first point in our problem and can not yet even go on to consider the finished photograph. To produce on paper a facsimile of the tones and lights and shades of the original subject you must first secure a record (on transparent glass or film) of the amount and position of all these tones.

The plate or film on which this record is to be made is called the sensitive plate, and the record when finished we call a negative. To make this record it is necessary that the various amounts of light reflected from the objects being photographed should be impressed upon the sensitive plate (which is shut up in a dark box, the camera), by passing through a lens. It is also necessary that these rays of light should be allowed to fall upon the sensitive plate for enough time to have the required effect and yet not enough time to overdo and spoil the effect. This branch of photography is called exposure; it is a subject which I am not writing upon in these articles, and I have to presume that a sufficiently correct exposure has been given to the plate.

I have not yet described what the sensitive plate looks like or is. By the way, although in kodaks and other cameras a celluloid film is used instead of a glass plate as a support to the sensitive surface, it will be more convenient to always use the word plate, as the surface itself is sometimes called the film. Well, the plate, to look at, has a cream-colored surface and is about as transparent as thin china. It has exactly the same appearance after exposure as it had before, and a microscopic examination could not detect a difference. To make this sensitive surface, a kind of soup has been prepared, with a mixture of gelatin (dissolved in water) and innumerable particles of a silver salt called bromide of silver. This soup has been poured on the glass plate (or film) and allowed to set, first into a substantial thickness of jelly and later into a

skin or layer on the plate. It is the sand-like particles of bromide of silver which become acted upon by the light, and the action of the developer is to alter those particles affected by light to



the black or metallic state, and to leave those particles unaffected by light in the transparent state, so that they can afterward be dissolved away by a chemical solution called the fixing bath.

THE MENTAL PICTURE.

Banish from your mind your old mental picture of a sensitive *surface* to the plate, and think of it as a substantial thickness of jelly in which are embedded innumerable sensitive particles, each one separately ready to be acted upon by light so as to be put into the developable condition. Fig. 2 is an imaginary section or slice through the sensitive film showing the sensitive particles

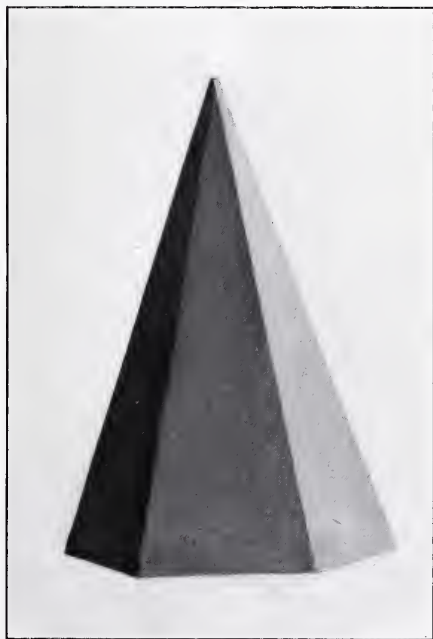


FIG. 3.

much exaggerated in size. Suppose that on the part of the plate marked A no light has fallen and none of the particles are affected; that on the part marked D a full amount of light has fallen (such as that reflected from the lightest side of our wooden pyramid), and that therefore all the particles are affected, this action being marked by a dot on each. In the part of the film marked C, half the particles are supposed to have been affected by the light, and in B one quarter, all so affected being marked by a dot.

Now, our ultimate aim or result (as far as these articles are concerned) is the finished record or negative of which I have spoken. Let us see what this is like. Glance again at our wooden pyramid (Fig. 1), and then at Fig. 3, which is its record or negative. A sensitive plate has been exposed to the rays of light reflected from our pyramid and fully developed. At the part marked A,

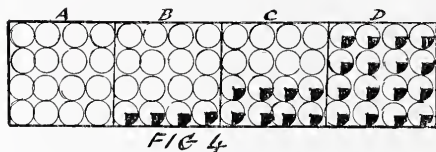


FIG 4

where the black background is represented, no light has fallen, and no particles were affected, and so clear glass remains. At D the full light from the whitest side fell, all the silver particles were changed to the developable condition and all were reduced to blackness and opacity. C and D are (as in Fig. 2) intermediate light actions, and therefore intermediate tones. Now, if you will compare Fig. 1 with Fig. 3 you will find they are exactly the opposite of each other. Where one is black the other is white, and vice versa, and the first is often called the *positive*, while the other (which I have termed the record) is nearly always known as the *negative* representation of the object.

Now that we know what it is we are going to try to produce (the negative), let us come back to our mental picture of the thickness of the film. You have looked at Fig. 2 and noted those particles which are marked with a dot and

are therefore in a developable condition. Never mind for the present what a developer consists of. It is sufficient to know that it is a chemical solution which, when poured on the exposed sensitive plate, has the power of gradually

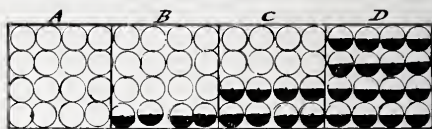


FIG 5

altering those particles affected by light to the black and opaque condition. The developer has been poured on our plate and has been allowed to act for one-quarter the time required for its full effect. In Fig. 4 we get a graphic representation of what takes place. One-quarter of the dotted particles are blackened and one-quarter of the developing work is done, it being particularly to be noted that the developer has done just the same *proportion* of work on B as on D on the particles which were ready for it to act on.

Fig. 5 shows what the developer may be supposed to have done at half time, when it has only half got through its work. The affected particles are now all half blackened.

In Fig. 6 we see the result when the developer has completed its work. All the silver particles which the light has affected are now fully blackened. You will notice that at all stages (Figs. 4, 5 and 6) those particles not dotted are not touched at all by the developer. If, however, we left the plate too long in the developer it would begin to darken even these particles (a result which is generally known as fog), and in time

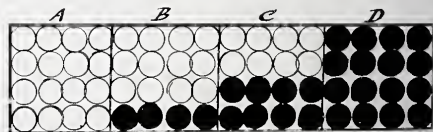


FIG 6

darken the whole plate throughout, a thing, of course, to be avoided.

Now, if you were to hold up the plates represented by Figs. 4, 5 and 6 to the light the first would show a feeble

darkening in each of the three gradations, with little contrast between them, the second a much stronger darkening and more contrast, while in the third the darkest tone is absolutely opaque and

there is a very strong contrast between that and the faintest tone (B) on the same plate. In fact, the tone D has *increased in opacity much more rapidly than the tone B.* ALFRED WATKINS.



Negative by H. A. Fogg,

THE VILLAGE SMITH.

Lockland, Ohio.

PHOTOGRAPHIC PRINTING PROCESSES.*

BY LOUIS H. HOYT.

CHAPTER IV.

TONING.

The toning bath and manner of using it is practically the same for all makes of paper. Slight variations in the amount of gold and alkali used will often be necessary, but the general principle of the process is the same. Each manufacturer gives a printed sheet of directions with every package of paper and these directions should be studied by the printer, unless he be far enough advanced to regulate the baths to produce the best results. It is not a good practice, especially for the beginner, to change from one brand of paper to another for every batch of prints. The practice is very common. I received a letter from a young gentleman in which he stated that he had owned a camera for something over three months and in that time had experimented (?) with all the different makes of paper in the market, with uniformly poor results. His toning bath he purchased ready prepared from a dealer in supplies (their own make) and yet he claimed that he followed closely the directions that came with the paper.

It is quite impossible to give the exact proportions of the chemicals needed in the toning bath. The varying qualities of the chemicals and water, as well as the difference in paper and prints, make it necessary for the printer to learn to judge from results how to prepare the baths and keep them in good working condition.

For convenience the materials used should be at hand in the form of stock solution and should not be too strong. Probably the most convenient method of making the gold solution is to dissolve say fifteen grains of chloride of gold in fifteen ounces of water. Each ounce of the solution will then contain one grain of gold, so that in measuring, if one grain of gold is required, one ounce of the solution will contain it.

One-half ounce will contain one-half grain, etc.

The alkali should be made in a rather weak solution. Strong alkalis, such as carbonate of soda, are apt to cause trouble unless handled in very weak solutions and very carefully. The milder alkalis, such as borax or bicarbonate of soda, are the easiest handled and, if used intelligently, give as good results as can be obtained. With either of these two, prepare the solution by placing a handful in a bottle and add three or four ounces of hot water. Shake it well and allow to settle. When clear, pour off the liquid and filter into a bottle, and to each ounce add another ounce of water. This makes a solution strong enough for all practical purposes and yet mild enough so that the danger of adding too much to the bath is lessened. That different alkalis influence the color of the tone is undoubtedly true, but the difference is so slight that I think I am safe in saying that it takes an expert to detect it.

Prepare the gold bath at least several hours before needed, so that it may ripen thoroughly. It is possible to make up the bath immediately before use, but the results are not so certain. For an ordinary bath pour about thirty-two ounces of absolutely pure water into a bottle and add an ounce of the gold solution, or one grain of gold. Double this amount of gold and sodium will be necessary. To this add say one-half ounce of the alkaline solution and shake it well. Now drop in a piece of red litmus paper and note results carefully. If the bath contains enough alkali the paper should turn blue in not less than three, nor more than five minutes. If it does not turn color in this length of time add a trifle more alkali and test again. Be very careful in adding the alkali so that too much is not put in, as it is much less trouble to do it slowly than to have to weaken the bath or neutralize it again with acids. The litmus paper used should be of soft paper and of good color. Use only that sold in tubes and bearing the label of a reliable manufacturer, not of a dealer.

The bath should then be set aside to

ripen, for several hours. When the bath is ready and the print well washed, test the toning bath with one or two prints before placing too many in it. On an average prints should tone in about ten minutes. Some printers tone a trifle faster and some more slowly. Should the bath tone too rapidly add more water to weaken it. If too slowly add a little gold, a few drops at a time, until the right speed is obtained.

Toning can not be hurried. If you expect to wash, tone and finish a batch of prints in twenty minutes or half an hour, don't say a word about the results. Grin and bear it and the next time you tone go about it leisurely.

If the bath is in good condition and working at the right speed, the first results noticed will be the clearing of the whites. This change should not commence to show until the print has been in the bath at least thirty seconds. In a bath that is evenly balanced the whites clear slowly and the whole print takes a gradually deepening and darker tone, with the finer details becoming more clear and distinct.

Should the bath clear the whites too rapidly it is either too strong in gold or too alkaline. If too strong in gold the effect will be principally on the whites and half-tones, clearing them quickly with no immediate effect on the shadows. If too alkaline the whites clear quickly, possibly taking an old-gold, yellowish tint, and the half-tones assume a bluish color. A bath which is too strong in both gold and alkali will tone too rapidly; the whites will bleach and the half-tones take on a faded, over-toned appearance, while the shadows will probably be mottled and granular. This will especially be true if the bath be not sufficiently ripened.

For sepia tones the printing should not be very deep, only a shade or two darker than wanted when finished. Tone in a bath weak in gold, and carry the toning only a trifle further than is enough to change the brick red color of the print. For the warmer or cherry tones, use the regular bath and carry the toning well along until the red or yellow can not be detected in the shad-

ows when the print is viewed by transmitted light. Experience, gained from observation, must be the teacher, as to how far the toning must be carried. Some brands of paper change very little during fixing, while others do not fix out at all as they appear when coming from the gold. The nature of the paper in this respect can only be learned by repeated use and this fact more than almost any other should be the reason for not changing from one to another make too often.

There are many printers who seem to think that the more different chemicals they can get into a bath the better it is. Fortunately they are comparatively few in number. Common table salt is recommended and the printer should experiment with it, commencing by using only a few grains. Much is claimed for acetate of soda. It should be made into a solution and used very sparingly. Sulphite of soda has also been mentioned, but the only possible action I can notice is that it makes the bath work slowly if used in very small quantities and if in large amounts it stops toning entirely.

The best practical printers use water, gold and alkali. If there was any virtue in using other salts, it seems to me that the men who handle the big batches would have discovered it and made use of them, but I positively do not know of a single one who does so.

As to whether it is best to use a bath that is entirely new, or to save and use a part of an old one is a question. Personally I prefer a new one if it is thoroughly ripened, but most printers use part old and part new, on an average. I should say, of about half of each. Certainly the results are good.

Toning should be done in a weak light. The prints should be kept well separated and be moved about occasionally. As each print attracts and retains a part of the gold in the bath it is constantly weakening and more gold must be added from time to time. It is better to add a few drops at a time, occasionally, than to wait until the bath has weakened considerably and then add in quantity, as by so doing the bath is kept more uniform and works more evenly.

VOIGTLANDER AND I.*

BEING THE REMINISCENCES OF JAMES F. RYDER.

CHAPTER IV.

A spirit of unrest possessed me, a natural diffidence and lack of confidence in myself was my bane. I was always fancying that people who had known me as a boy about the streets only a few years back were seeing the absurdity of my claim to being a daguerreotypist. I had heard "a prophet was without honor in his own country," and so concluded to go elsewhere. Therefore I advised the Professor I must be relieved of my engagement, as I was bent upon going out for myself.

The companionship between Voigtlander and myself was congenial and comfortable. We would go out together and see what fortune had to say to us.

Although settled upon going, it was a matter of some days' consideration before I could determine where. I was timid of trying at first any considerable town or village and decided upon going into the country among the farmers, where I had some acquaintance. I had been, as a boy, employed by Deacon Lyon, a rich fruit grower who marketed his crops in Ithaca, and during the ripening season drove in two and three times a week with the product of his orchards. I made overtures to him for a visit to the farm, with a view to doing a little business among his neighbors in likenesses.

He was quite pleased to have me go. It was something of a novelty to have a daguerreotype man at one's house. He had some daughters and a son at home who would surely be pleased, and he was quite agreeable to it as well. When within a couple of miles of home he called out to his neighbors in passing that for a few days he was going to have a daguerrian artist at his house, and if they wished to have likenesses taken they would have a chance. At all events they were invited to come up and see the folks, and the pictures.

It was more than I expected of the deacon, but I was glad to be announced

and advertised by him. At one house he drove up and waited for "the folks" to come out. There I was introduced to the mother and daughter of the house and the announcement was again made that pictures would be taken at his house for a few days, and the invitation extended for them to come up.

There was a broad veranda extending across the front of the spacious home of Deacon Lyon. Upon this the trunk containing my gallery outfit was placed and quite a flurry of interest it developed when Mrs. Lyon and her two young lady daughters learned what it meant.

Upon this veranda I concluded to take my pictures. The large trees in front proved a good protection from the too strong light, and softened it to my liking. When, on the following morning, the deacon was about to start for town with his load of fine peaches, showing temptingly in the well-filled baskets, I asked to be allowed to "take" him and his load before tying the covering over the fruit. I objected to his putting on his better coat and hat, and took him as he was, as the farmer market man. It was a hit. That picture went over the neighborhood, was seen and admired by a dozen families, and many came to the deacon's to see it.

I took quite a number of pictures on the deacon's porch, and was invited to move to other farmhouses and take members of the families. I was kept busy in this work among farm people for some weeks.

The district in which I operated was a rich and prosperous one. All were "well-to-do farmers" and could well afford to spend a few dollars for family likenesses. I began to feel the pleasure of prosperity for myself. The consciousness of carrying in my pocket more dollars than I had ever done, or counted upon, was a splendid gratification. Invitations to visit new localities were extended in good time to prevent my taking trouble about where next? It was pleasant to be in demand. There had been two calls for me to go to "the village," a quiet little center some five miles distant. I concluded I was by

*Copyright, 1900, by James F. Ryder.

this time sufficiently experienced to venture upon higher ground, so resolved to take the plunge from farms to a real metropolis.

There was no hotel in the village. There was a main street and a cross street, a store and postoffice, a grist mill and sawmill, driven by a passing

stream. In addition to the above was a wagon shop and a blacksmith shop. These comprised the business traffic and industries of the center.

The prominent lady of the place, whose husband was merchant and postmaster, welcomed me to her home and permitted me to use her parlor, the finest



Negative by M. Moulin,

San Francisco.

HUBBY'S LODGE NIGHT.

in the village, in which to make my sittings, rent free. My sleeping room, the best in the house, and board, cost me \$2 per week. My little frame of specimen pictures was hung upon the picket fence beside the gate. When my camera was set up, the clip headrest screwed to the back of a chair and background and reflecting screen tacked upon frames, I was ready for business. I used the open front door for my light. I could ask for nothing better. It was really surprising the interest that was manifested. People came in throngs and from miles away. Mine was the first camera in the village and it created a sensation. I was busy with customers all the days. The dollars rolled in right merrily; no business in town equaled mine. The good lady of the house was the possessor of a large cluster breastpin which was lent to every female sitter, to the mutual satisfaction of lady owner and lady sitter. It was also a great aid to me, proving a capital point for aiming my focus. After the day's work a saunter across the bridge and through the path of the meadow, where the pleasant odor of clover and the glad ripple of the brook greeted me, was my pleasure and my habit. The home-coming farmer gave me pleasant greeting. The boy with torn hat and trousers rolled half way to the knee, as he fetched the cows from pasture, hailed me with "Take my likeness, mister?" The village lasses, shy and sweet, gave modest bows, as they met the "likeness man." I was regarded with respect and courtesy. All were friendly and genial. All save one. The blacksmith, a burly man, the muscular terror of the village, disapproved of me — said I was a lazy dog, too lazy to do honest, hard work, was humbugging and swindling the people of their hard earnings. He for one was ready to help drive me out of the village. The greater my success, the more bitter his spleen. In the abundance of his candor he denounced me to my face as a humbug, too lazy to earn an honest living, and said he wouldn't allow me to take his dog; that I ought to be ashamed to be robbing poor people. Other uncomplimentary things he said which were

hard to bear, but in view of his heavy muscles and my tender years I did not attempt to resent.

Well! I left the little village and the brawny blacksmith one day and moved to another town some miles distant.

A week later I was greatly surprised by a visit from him; he had driven over to the new place to find me. He had a crazed manner which I did not understand and which filled me with terror. He demanded that I put my "machine" in his wagon and go with him—straight, at once.

I asked why he desired it, and what was the matter? Then the powerful man burst into a passion of weeping quite uncontrollable. When he could speak he grasped my hand, and through his tears told me his little boy had been drowned in the mill race and I must go and take his likeness. "A fellow feeling makes us wondrous kind." My sympathy for the poor fellow in his wild bereavement developed in me a tenderness for him which brought him closer to me than any friend I had made in the village. I am not ashamed to say I could not keep tears back from my own eyes.

All the way back to the village he wept and moaned—"My boy, my boy!"

I am glad to say I was fortunate in getting a good picture of the little fellow. I never saw a man more grateful or more repentant than was that poor blacksmith. From that time he was my devoted friend. He came repeatedly to visit me, always bringing with him the picture I had taken, and had a desire to show it me again and again. He insisted that I go home with him for over Sunday, which I did. He wanted to erase the blemish of his unfair treatment of me and I did all I could to show him he had succeeded.

WHAT'S the matter with having a specialty in your work this year? Make a special study of trees, flowers, dogs, cats, children's games, waterfalls, rivers, clouds, chickens, old furniture, occupations — any old thing, and you will be surprised how interesting it will be.

BEGINNERS' TROUBLES.**NO. IV.—EXPOSURE TROUBLES AND HOW TO AVOID THEM.**

Some time ago I had a young man coming to me at regular intervals for instructions in photography. To begin

lect his own subjects, and when he would describe them and tell me at what time he expected to take them, I would give him the number of the stop to use and the required exposure. During the time he followed that plan he



Negative by R. J. Waters,

San Francisco.

FIRST PRIZE.

Architectural Class, San Francisco Salon.

with I would send him out to photograph different objects, always telling him what stop to use and what time to expose for each. Then he began to se-

never made a failure. His negatives were bright and clear and snappy in every respect; as good as my own. Of course it ought to have been so, for he

had the knowledge I had gained during several years of experience and study to draw upon.

But when I sent my pupil out to select his own subject and use his own judgment about stops and exposures, his troubles began. For a long time after that poor negatives were the rule, and good ones the rare exception. In nearly every instance the trouble was in the exposure. Of course he was surprised at his repeated failures, but I was not; for when I sent him out to use his judgment about exposure I knew that he had none to use.

Judgment is that faculty that enables one to arrive at conclusions by comparing known facts or past experiences. If one has no past experience and is unacquainted with facts relating to a subject, it follows that he can have no judgment in that particular matter.

My pupil improved with practice, just as every one does. But to get the proper exposure was his greatest trouble, and he once said to me: "I wish I had about ten years of experience put up in portable form, so I could carry it around in my vest pocket and consult it whenever I wanted to make an exposure." It was not laziness that prompted that wish but simply a desire to profit by the experience of others, which was perfectly right.

I thought at the time that a carefully compiled table, giving the necessary exposure for different subjects, with different stops, under the varying conditions of light and with different brands of plates and films, would make correct exposures as easy for the novice as for the photographer who had years of experience behind him.

My time was occupied with other matters at that time, but I resolved "at a more convenient season" to compile and publish such a table. But when that convenient season came I found that others were ahead of me and so I let the matter drop. Since I began this series of articles, however, I have had the matter repeatedly brought to my mind; for fully one-half of the beginners' troubles that have come to my notice are caused by incorrect exposure

of the negative. A very large proportion, if not all of these mistakes, could be avoided by consulting a carefully compiled exposure table.

Several such tables are published, but I never used one nor even carefully examined one, so I am not in a position to say this one is correct or that one is not. But this I will say; any practical photographer with good horse sense *could* compile exposure tables. The "Photo-Beacon Exposure Tables" were compiled by such a man, and on the strength of that fact I have recommended them to several beginners with whom I am acquainted. The properly timed negatives they have afterward shown me testify more plainly than anything they could say to the accuracy of the tables.

Now I hope none of my readers will think that this is an ad. written in order to boost one of Mr. Todd's books. I am in bigger business than that and I fancy he is also. If the book had been somebody's else I would have recommended it just the same, and THE PHOTO-BEACON would have not sent in a bill for advertising, unless its policy has lately changed. If the prominent place they usually occupy in the display windows of most stock houses is any sign of popularity the "Photo-Beacon Exposure Tables" need no additional boost.

Some of my readers may think that exposing by rule will be too mechanical to be artistic; but nothing could be farther from the truth. The place to display one's individuality is anywhere but in making the exposure. A certain subject in a light of certain intensity requires an exposure of a definite time. Give it more time and your negative will be overexposed; give it less and it will be underexposed. Any variation in subject, light, stop or sensitiveness of plate, demands a definite alteration of the exposure. The whole thing is mathematical, and though artists may be born, mathematicians are certainly made.

I know of no reason why a beginner should make so many faulty exposures when such a help has been placed within

his reach. It is certainly poor economy to be without the tables, for if they save half a box of 4 by 5 plates it will be a paying investment financially, to say nothing of the satisfaction it will give to be able to get bright, clear negatives every time.

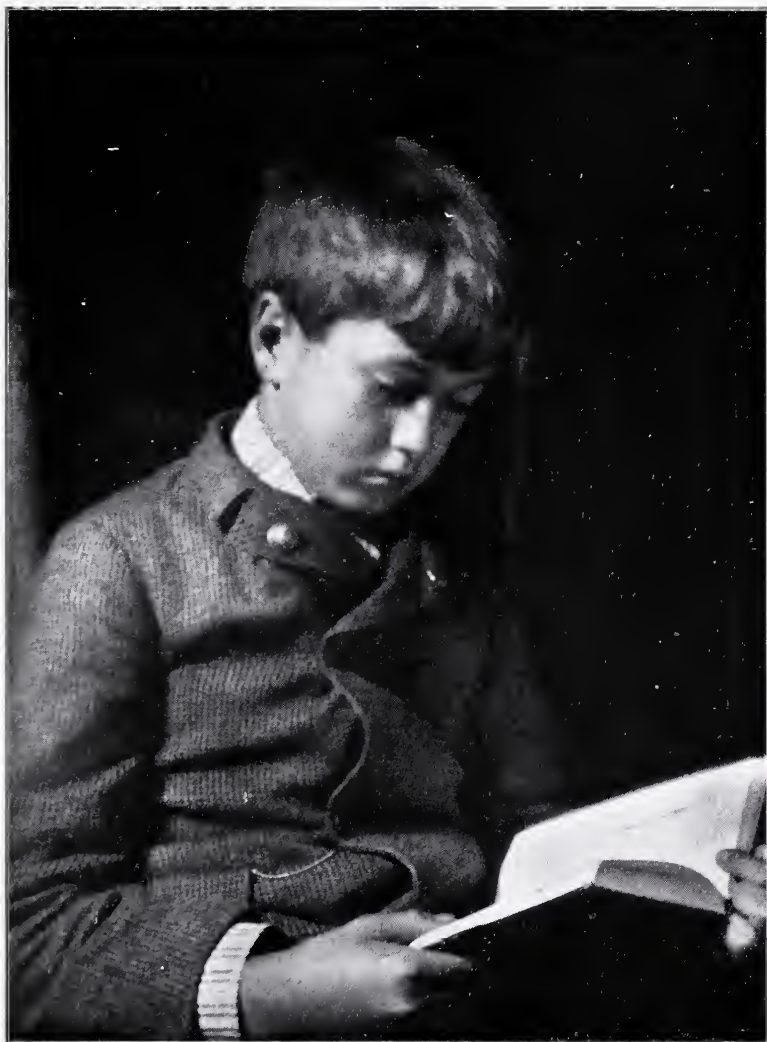
J. EDGAR ROSS.

A FEW NOTES FROM THE WEST.

Southern California has difficulties peculiarly its own for the amateur pho-

tographer. In the first place, there are oceans of dust in the atmosphere, except while it rains, and a few days after. This does not affect the exposure, but must be considered in handling the plate and especially in drying the negative. In ordinary rooms the negatives must be leaned against the wall, film side under, as the dust will then settle on the back of the negatives, while the film dries free from it.

Another great difficulty is in the de-



Negative by W. F. James,

CLIFFORD.

Chicago.

veloper getting too cold. The air cools very rapidly after the sun goes down, and will lower the temperature of the developer 20° in an hour. The result is uneven development, possibly on account of uneven flow of the developer. I have spoiled some of my best exposures in this way. The remedy is simple. Stoves for heating are rare luxuries in Los Angeles, so I take an oil stove and place in closet used for a darkroom and get the temperature right. When the closet gets too cool I stop work and use the oil stove again.

In striving after correct tones, using color screen and isochromatic plate, I generally overexpose slightly, rather than underexpose. The result gives good gradation, but often there is a lack of contrast. Lately I have been remedying this difficulty without lessening the exposure by using two developers. First I place the plate in a very weak developer. As soon as the image becomes fairly plain, I place in a stronger developer and finish. My latest combination gives excellent results.

STOCK SOLUTION No. 1.

Water 4 ounces
Eikonogen 28 grains
Hydroquinone 18 grains
Sodium sulphite (crystals) .. ½ ounce

STOCK SOLUTION No. 2.

Water 4 ounces
Carbonate potash..... 300 grains

For the weak developer I take:

No. 1..... 1¼ ounces
No. 2..... ¾ ounce
Water, up to..... 7 ounces

For the strong developer:

No. 1..... 2¼ ounces
No. 2..... 1 ounce
Water, up to..... 6 ounces

I usually develop six 5 by 7 plates with the above developer. After the stock solutions stand a day or so there is a sediment formed. Each batch of developer when mixed with water ready for use should be placed in a 10-ounce bottle and well shaken to dissolve the sediment.

Those amateurs who are contemplating packing exposed plates, film together, for later development, might do well to note my experience. I so packed

two dozen very carefully. Nevertheless, nearly every negative has several spots, larger than dust spots, where the film has been rubbed through. Possibly California dust is the cause of it.

I have a single lens fitted in a Unicum shutter. The largest stop is marked *f*-8. Recently I made exposures, comparing results with *f*-8, single lens, and those of a rapid rectilinear lens. I found that single lens *f*-8 gave results same as R. R. lens *f*-16, same plate and exposure.

In December last I was on a ranch, far from darkrooms and photographic lamps. My expedient may be interesting and useful to amateurs on like occasions. I got a soap-box ten inches wide each way and twenty inches long. In the bottom at one end I cut out an opening 3 by 4 inches. Then inside I put a large piece of orange paper, covering the bottom and partly the sides. Then with a knife I cut the lid so that it fitted snugly into the box with small notches at bottom for ventilation. Four tacks inside the box ½-inch from the outer edge kept lid from falling in. My focusing screen, a large black cloth, placed over and behind the box and pressed up close against sides, kept lid from falling out, at the same time kept the light that escaped past edges of lid from being reflected toward the operator. Through a piece of inch board, three inches square, I bored a hole same size of a candle, put in this a lighted candle, and put in box. I have developed instantaneous isochromatic plates with this light without fogging, though I kept the plates out of the light as much as possible until the image was formed. I should say, also, that the first time I used it, with a long candle, I burned a hole through top of box. This hole made a good ventilator. After that I used one-third of a whole candle, and placed a piece of wet paper over hole under the cloth.

E. M. MILLER.

THE Albion Novelty Company advertise in this issue a number of valuable prizes to be competed for by users of their "Lamplight" developer.

REDUCING WITH PERSULPHATE OF AMMONIA.

This reducer is greatly different in its action from the ferricyanide reducer and is specially suitable for underexposed negatives, as it reduces the high lights to a greater extent in proportion than it does the shadows. It can be kept in solution, or a few crystals dissolved when required. It is better kept in solution, as all trouble of weighing is avoided, and accuracy is most desirable in gauging the strength of this reducer.

For negatives possessing ordinary over-density a one per cent solution is strong enough, hence a ten per cent solution of the salt — one ounce in nine

say almost saturated — for about fifteen minutes. The plate may then be placed in an ordinary fixing bath for ten minutes, then thoroughly washed.

A NEW USE FOR THE RAYFILTER.

Mr. S. C. Workman, of Torrington, Connecticut, writes under date of February 18, as follows:

"I found the bichromate rayfilter a great convenience in a way that I have never seen mentioned heretofore. In making bromide enlargements, I use it as a cap for the lens. After focusing on the easel I cap the lens with the filter, and proceed to adjust the bromide paper in position. The light passing through the filter allows one to see exactly where



Negative by H. A. Fogg,

Lockland, Ohio.

COOLING OFF.

ounces of water — is a useful strength. The negatives to be reduced must have been well washed and may be placed in the bath either wet or dry. The bath consists of one dram stock solution to nine of water. The use of this reducer is accompanied by a remarkable liability to stains and spots. After the negative has once been placed in the solution it should be most carefully handled when removing it for examination. By one corner is the best way to hold it, and always the same corner. If this precaution be not taken, stains will often be found to start from the place where the fingers touch.

After reduction is complete, rinse slightly in water, and then immerse in a strong solution of sodium sulphite—

to place the paper, and yet does not affect the sensitive surface at all."

This action of the rayfilter will, of course, be perfectly understood, when it is remembered that bromide and similar papers are only sensitive to a very small portion of the upper end of the spectrum. This is why they can be handled so freely in yellow light. The rayfilter strains out all of the rays except those below the yellow green of the spectrum, thus giving a perfectly safe light by which the image on the bromide paper can be examined and the picture adjusted on the sheet as desired. When the exposure is to be made the rayfilter can be removed from the lens the same as an ordinary cap and again replaced when exposure is convenient.

"TONES ON PLATINUM PAPER"

Formed the subject of a highly interesting series of experiments at the weekly instruction evening of the Borough (England) Polytechnic Society. By various modifications in the constituents and temperature of the developer a wide range of tones was obtained, and it was shown that even with cold bath papers

almost any tone from coal black to brick red could be produced at will, while in the case of the "sepia" paper, the strength of tone and depth of gradation were very marked, according to the treatment it received. The following table gives the principal results of these experiments, with formulæ employed:

No.	Paper.	DEVELOPER.					Temperature of Developer.	Result.
		Potassium Phosphate.	Potassium Oxalate.	Mercury Bichloride	Citric Acid.	Water.		
1	AA	$\frac{1}{2}$ ounce	$\frac{1}{2}$ ounce	.....	.....	5 ounces	Warm, 76°	Warm black.
2	AA	$\frac{1}{2}$ "	$\frac{1}{2}$ "	.....	.....	5 "	Hot, 176°	Warmer black.
3	AA	$\frac{1}{2}$ "	$\frac{1}{2}$ "	3 grains	.....	5 "	Hot	Brown black.
4	CC	$\frac{1}{2}$ "	1 "	30 "	.....	5 "	"	Cold brown.
5	CC	.....	1 "	30 "	.....	10 "	"	Warm brown.
6	AA	$\frac{1}{4}$ ounce	$\frac{1}{2}$ "	30 "	.....	10 "	"	Cold sepia.
7	AA	.....	1 "	Abnormal quantity	.....	10 "	"	Brick red.
8	CC	Company's	D salts One ounce	30 Grains	.....	1 pint	"	Rich brown.
9	CC	Company's	D salts Two ounces	30 "	.....	1 "	"	Sepia.
10	RS	$\frac{1}{2}$ ounce	1 ounce	3 "	10 grains	5 ounces	"	Warm brown.
11	RS	$\frac{1}{2}$ "	$\frac{1}{2}$ "	.....	.....	5 "	Warm	Rich brown.
12	RS	$\frac{1}{2}$ "	$\frac{1}{2}$ "	.....	.....	5 "	Hot	Purple brown.
13	RS	$\frac{1}{2}$ "	$\frac{1}{2}$ "	30 grains	.....	5 "	"	Sepia.
14	RS	$\frac{1}{2}$ "	1 "	30 "	.....	5 "	"	Warm sepia.

PHOTOGRAPHERS' ASSOCIATION OF IOWA.

The tenth convention of the above association will be held at Des Moines from May 14 to 17. A very interesting program has been arranged, and Iowa photographers will find it to their benefit to attend.

THE IDEAL ENLARGING LANTERN.

We have recently received a considerable number of inquiries from readers who are anxious to do enlarging by artificial light, and deeming an enlarging lantern rather an expensive article, wish to know how to construct one. To one and all we have replied that as condensers are an essential for such work it is not possible to build it very economically, especially as a complete enlarging, reducing and projecting lantern can be bought at a very reasonable price. We refer particularly to the Ideal enlarging lantern, manufactured by Burke & James, 109 Wabash avenue, Chicago, and would advise all those interested to write to them for particulars.

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AN ILLUSTRATED PHOTOGRAPHIC JOURNAL.
Published Monthly.

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Accepted literary articles will be paid for upon publication.

Subscribers advertising secondhand apparatus for sale or exchange, special articles wanted, help or situations wanted, *one insertion free.*

To insure insertion in any particular number, copy for advertisements must be received not later than the 20th of the month preceding.

All communications relating to THE PHOTO-BEACON should be addressed to

THE PHOTO-BEACON COMPANY,

TRIBUNE BUILDING,

CHICAGO, ILLINOIS.

Eastern Office: 611 to 621 Broadway, New York.



Negative by Gus Horlin,

WINTER AFTERNOON.
(FIRST PRIZE.)

Chicago.

THE PHOTO-BEACON.

EDITED BY F. DUNDAS TODD.

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MAY, 1901.

No. 5.

REMOVAL NOTICE.

The office of the PHOTO-BEACON is now located at room 409, Security building, Chicago.

AN AMATEUR CONVENTION.

Has the time not come when the amateur photographers of America should have an opportunity to meet at least once a year to have a jolly good time together for a few days and enjoy the exhilarating mental and physical stimulus that comes from association with other minds? I was very much impressed with this phase of amateur photography during my visit to the British convention a couple of years ago, and since then have been waiting for an opportune moment to propound the idea to my readers. It seems to me the right time has come, if I may judge by the wonderful enthusiasm that is being shown of late in the pictorial competitions, and the character of my daily mail. The art fever is seemingly epidemic, the camera is being more and more considered as a tool rather than an end, and the result is that amateur photographers are seeking the beneficial influence of other men's ideas. Literature of a suitable kind and reproductions of good photographs are undoubtedly highly educative, but it cannot be gainsaid that personal contact with its subtle magnetism and original pictures are far superior.

Again it is more than an inspiration to see how others work, to hear their

views of a subject that interests them. I once had a long correspondence with an amateur who had become pictorially hungry, and at length he closed the correspondence by saying that while my letters were undoubtedly interesting he thought he could learn more by a few hours in the field with me, and that therefore I should expect him to be in my office two days later. He lived eight hundred miles from Chicago, but he was so determined to have at least one full meal that he made a special run to see me. Well, we spent four hours in one of our parks, not making many exposures, but planning pictures. All went smoothly until we struck a real problem in composition. I pointed out the object to be obtained, but he could not see how he could compass it. At last I lifted the camera in a diagonal direction about six feet, and lowered it to within two feet of the ground. He looked at the ground glass, then gave a shout. "Now I see it, now I can understand how a photographer can to a certain extent select and arrange his composition. This one idea was worth traveling a thousand miles to get." Within six months this gentleman was willingly paid \$1,000 for a lot of negatives, and I think they were cheap at the money. Today he is considered one of the leading amateurs in the Northwest; before he was simply a snapshot fiend.

This is a living illustration of the advantages of personal contact. We are all apt to get into grooves, and all fail

to realize what possibilities lie before us. Really there are very few limitations to tools, the limitations are mostly in the individuals, and even there they are more due to ignorance of possibilities than to deficient brain power. Every one of us possesses latent abilities, all that is needed is the touching of the spring that will open the box. To many, a photographic convention would prove a self revelation that would bring future pleasure worth more than money could measure.

An amateur photographic convention to be a success must needs be held at a spot that is picturesque, as much of the time would be given up to outings and actual work with the camera. Again the social features would be an important element and such would be best promoted by excursions. The evenings could be given up to talks, business routine, lantern exhibitions, or informal dances. All this indicates to my mind some summer resort, not too fashionable, where suitable accommodations could be had at moderate prices and within easy access of the great centers of population. To my mind it is an ideal method of spending a week's vacation and doubtless there are thousands who feel as I do.

If you are interested let me hear from you. If you know of a suitable locality tell me its name, and specify the month of the year most suitable. If you have any suggestions to make, set them forth and see if we cannot begin the century with a first-class Amateur Photographers' Association of America. I figure out that there are at least three million amateurs in this country, and assuredly a magnificent organization could be effected out of such a host.

F. DUNDAS TODD.

PICTORIAL COMPETITION No. 35.

It took the judges exactly four hours to make the awards in the above competition, and by this fact our readers will see that theirs is no light task. But as a matter of fact it is to them a pleasure, and when they sifted out the "good" from the "not good" in the

first round, they were enthusiastic in expressing their opinions of the great progress that had been made by the competitors during the year, for over one hundred prints were in the higher class. Bit by bit the mass was reduced and at length the following awards were made:

First prize.—Gus Horlin, 5127 Wentworth avenue, Chicago.

Second prize.—J. H. Field, Berlin, Wisconsin.

Third prize.—W. L. Whitson, 88 Market street, Chicago.

This is not the first time Mr. Horlin has appeared in the list of prize winners, and the readers may be interested in a confession we have to make. Mr. Horlin dropped into the office about two years ago to show us some very ordinary prints. Looking them over, we thought there was really no inherent artistic taste in their maker, but he seemed anxious to try and make pictures, so we advised him to get Robinson's books and study them. The result is seen in the first prize picture. Frankly, we consider that as an artist Mr. Horlin is more made than born, and he is but another living proof of the wonderfully educative influence of photography when taken seriously.

PARTICULARS OF THE WINNING PICTURES

First prize.—Made on Cramer Isochromatic plate, Ideal ray filter, open stop of lens, exposure one-fifth second, printed on Willis & Clements' Platinotype paper.

Second prize.—Taken March 8, 1900, 9 A.M., bright sunshine, on Cramer's slow Isochromatic plate, stop $f-22$, $\frac{1}{4}$ second exposure. Printed on Willis & Clements' Platinotype paper.

Third prize.—Made January 8, in bright sunlight, on Cramer Instantaneous Isochromatic plate, stop No. 8. Exposure $1\frac{1}{2}$ seconds, with B. & L. ray filter. Printed on Willis & Clements' Platinotype paper.

FUTURE COMPETITIONS.

Competition No. 37.—Branch of a tree without leaves. Closes May 31.

Competition No. 38.—Domestic animals. Closes June 30.

Competition No. 39.—Genre pictures, or pictures that tell a story. Closes July 31.

Competition No. 40.—Branch of a tree with leaves. Closes August 31.

Competition No. 41.—"At Home" Portraiture, that is, portraits not made in a studio. Closes September 30.

Competition No. 42.—Snap-shot pictures. Closes October 31.

Competition No. 43.—Landscapes. Closes November 30.

Competition No. 44.—Flower pictures. Closes December 31.

RULES.

1. There is no restriction as to the number of pictures to be sent in. On the print there should be written the title and the sender's name and address, but nothing else. Accompanying, a letter or postcard should be sent us, giving full particulars of date, light, plate, stop and exposure given; also the printing process.

2. Mark outside of package with number of competition. Ordinary letter rate must be paid where descriptive matter accompanies prints.

PRIZES.

First.—Books to the value of \$5.

Second.—Books to the value of \$2.50.

Third.—Books to the value of \$1.

Any books, on any subject, or if preferred, any article we can buy in Chicago.

FUZZINESS.

The fighting spirit in the matter of Mr. Wilde's and Dr. Detlefsen's pictures seems to be almost exhausted. Quite a number of letters have been received commenting very favorably on that of one of the judges, and by all appearances this particular communication has somewhat cleared the air.

To my mind the point of the whole matter is this: How can photography best suggest the idea of distance and atmosphere? That is certainly a weak feature of the art pictorially con-

sidered, but so far to my mind no one has yet solved the problem. Wishing it were different will do no good, but trying may accomplish something. We learn in this world by trial and error alone, and the one who tries is the one to be commended, not the fellow who kicks at the result.

I wait patiently the advent of the photographic distance and atmospheric genius.

F. DUNDAS TODD.

BOSTON, MASS.

MY DEAR MR. TODD,—You have told us that if we will provide the dollars, you know how to spend them in buying what we want. Here is mine; please spend it. I have also recommended your excellent journal to two of my friends. I am greatly interested in the discussion aroused over Mr. Wilde's picture which recently appeared in your magazine, and I am of your opinion that a good healthy squabble is a good thing.

I have read all the letters that have appeared on both sides of the question, and the letter by "One of the Judges," in the April number, struck me as a very fair treatment of the subject. He seems to be one of those personages who looks at a picture for all there is in it, and incidentally inclines toward good focus, and I am persuaded by the tone of his letter that you have at least one ideal judge. Mr. Wilde in his letter says he has been taught to make a picture with a camera, not "as its eye saw it, but as mine saw it." Now, if each one goes entirely by his own eyes, of course we shall always have a great variety of pictures, for there is not as much difference in photographic objectives, from the single achromatics up to the perfect anastigmats, as there is in human eyes. People who can not read large signboards thirty or forty feet away, would be very apt to see great masses of light and shade and not anything else. Is not there a point we may strive for, in a negative that will give *softness, color values, light and shade*, and ——— *detail* just a little, instead of fuzziness?

I am sending, under separate cover,

two pictures which you may use if they are worthy.

I remain, very sincerely yours,
W. M. SNELL.

TACOMA, WASH., March 25, 1901.

Mr. F. Dundas Todd, Chicago, Illinois:

MY DEAR SIR,—I am mailing you today one of my views, No. 427, entitled, "Lights and Shades of the Forest," which kindly accept with my compliments.

I send you this particular view out of my collection of something over six hundred, as it illustrates a point. The photographic atmosphere is all aglow over the subject of "fuzziness." That we are creatures of some individuality is a matter of course, and the interchange of ideas is beneficial. Criticism is wholesome if imparted in a spirit of love and truth. How many persons know what nature looks like, can in fancy paint nature's varied moods? Distant objects may appear faint and obscured, but does the eye see them blurred out of all semblance to form?

Detail is a desirable quality in a photograph, yet every part of it need not be brought to a needle-point focus.

The point I wish to illustrate as expressing my idea in my view is that here the eye perceives very nearly true to nature, color excepted. There is detail everywhere, in foreground and distance. At first glance is the dark shadows and following along to the distance is a dimness, not fuzziness. As the road narrows in perspective, so does the scene fade into soft gray. Sincerely,

A. H. WAITE.

You are publishing a good magazine, and I wish you success in "large chunks."

LORAIN, OHIO, April 14, 1901.

F. Dundas Todd, Editor PHOTO-BEACON:

DEAR SIR,—I have with a great deal of interest followed criticism on Mr. Wilde's picture entitled "An Autumn Morning," and published in January issue of THE PHOTO-BEACON. This criticism forces the conviction to my mind

of the fact that we have only a few artists, but many critics. Now, I do not know if I am deserving of either title, but I do know and would like to call the attention of the critics of Mr. Wilde's picture to a few facts which are inflexible in the production of art.

In landscapes, the painter or the photographer (I do not care which) should give the suggestion of a fairer creation than we know. The detail, the force of nature, he should omit, and give us only the spirit and splendor, and exalt in his picture the features that please him.

By reading the different criticisms I can not help but be assured of the fact that the word "art" conveys different meanings to the individual mind. Some seem to think that skill in manual execution is true art. To such I would recommend, and they could read with profit an article in March number of *Brush and Pencil*, by Henrietta Clorfatt. Among other things she says, and with truth, "perfect exactness is not art." And again, "the best works in photography are not perfect imitations."

In aiming at the production of artistic photography we should ever remember that art chiefly appeals to the soul and therefore can only be suggestive. We prize art in the relation to the embodied idea, common humanity and the universal laws of nature. In art we can not look to perfection, as such is impossible, and "An Autumn Morning" is no exemption. But the picture possesses all the aforementioned requirements without violating scientific correctness. It points in the right direction and is worthy of the honor it received. Yours truly,

KARL G. GODDARD.

REMOVAL NOTICE.

On account of the great increase in their business during the past year, Burke & James, Chicago, have had to find larger quarters, and these they have found at 118-132 West Jackson boulevard. They will have in their location more than double the present space, and the additional accommodation will be devoted to the manufacturing of their business.



Negative by A. H. Waite,

Tacoma, Wash.

LIGHTS AND SHADES OF THE FOREST.

BACKING PLATES.

SPRINGFIELD, ILL., April 12, 1901.

Mr. F. Dundas Todd, Chicago, Illinois:

DEAR SIR,—In April PHOTO-BEACON I notice an article from E. M. Shaw in regard to backing plates, and asking an explanation of Mr. Lamb's method. I am using practically the same backing that Mr. Lamb uses, with the exception of using some shellac in it. My formula is to make a paste of frescoer's black (which I get at a paint-shop), with equal parts of shellac varnish, alcohol and honey (all of which I get at my druggist's). For 5 by 7 plates I use an 8 by 10 kit with 5 by 7 opening to hold the plate while applying the backing, which I do with a wide, flat brush. This backing is very hard to scratch when dry, but dampen it and you can easily scrape off enough to judge the density of your plate while developing. That remaining on the plate does not affect the developer or hypo in the least. It gives a mat surface, which is required of a backing, and dries very quickly.

While not a subscriber to THE PHOTO-BEACON, I secure it every month from the news-stands and find it exceedingly profitable as well as interesting. And of your exposure tables — they are a godsend to beginners. Whenever I hear of any of my friends entering the photographic sphere I buy a copy of the tables and give it to him. It's a good way to retain a friend. Very truly,

A READER.

PITTSBURG, PA., April 6, 1901.

Mr. F. Dundas Todd, Editor PHOTO-BEACON:

DEAR SIR,—In reference to the important subject of backing plates, I would say for those interested in the matter that about a year ago I attempted to back my own plates. The best formula at my command at that time called for a thin paint-like mixture of alcohol, caramel and burnt umber, applied with a brush. I tried it. What a mess! The stuff got smeared on my fingers and try as I would I could not avoid marking the film. The dim light of the darkroom made it a most unsatisfactory operation, as I im-

patiently waited for the evaporation of the alcohol to dry the plates for reloading. I concluded that the scheme was not a practical one, and abandoned it.

THE PHOTO-BEACON, of March, brought out Mr. Louis A. Lamb's article on the use of lampblack distemper color for backing. This revived my interest and I again took up the subject.

For 15 cents, I purchased a small wide-mouthed glass jar of "Drop Black Distemper," manufactured by P. O. Pierce & Co., New York. This is lamp-black ground in water to a damp putty-like consistency. To this I added a level tablespoonful of thick caramel, and worked the two ingredients together thoroughly. To this I added 2½ ounces of absolute alcohol, stirring to a thick paste. This I transferred to a pint-size Mason fruit jar with screw cap and rubber ring to prevent evaporation of the alcohol.

A wad of cotton makes the best means of applying the paste to the back of the plates, as it gives a thinner and more uniform coat than a brush.

In my judgment, the plates cannot be transferred to the holders immediately without smearing the septum or middle partition of the holder. This dislodged lampblack acts as dust and is liable to cause pinholes on the film. Backing plates and filling holders are two operations that had better be done at different times.

I have a negative box, light-tight, holding two dozen plates in vertical grooves. I remove my plates from the original package and back the entire lot at one time. Photographers often have to refill holders in a hurry and no damp paste of any kind will dry quick enough to allow immediate reloading without smearing. A little time to dry in the box solves the problem.

To remove the backing before developing I prefer a damp sponge of the size of a pint cup.

Backing plates well pays for the effort in the superior results obtained, and I have adopted the scheme as a permanent one in my photographic operations. Yours truly,

W. S. BUVINGER.

PORTRAIT POSING AND LIGHTING.*

BY J. H. VANDERPOEL,

Head of the Department of Figure Drawing and Painting in the Art Institute of Chicago.

CHAPTER V.

It is well worth while making a little investigation into the causes of mobility in the human figure. Modern dress ac-

By means of the spinal column the pelvis receives the weight of the upper part of the body and in turn distributes it through the legs to the feet. Whatever the action of the legs, it is immediately responded to in the region of the pelvis and upon its action depends the position of the upper part of the body. For ex-



FIG. 23.

The use of the thin shawl in this portrait is to be deplored, as it detracts from the interest of the figure as such, since it breaks up all the lines of arms, waist and skirt, but has no charm of its own.

cents the region of the waist in both sexes so conspicuously as to suggest that all movement in the body has its origin there. Nothing could be more erroneous. The region of the hips or pelvis is the greatest factor or pivotal point in any action of the human body.

ample, when the entire weight of the body is thrown upon the left foot, the right slightly extended serving as a means of balancing the body, the right hip becomes considerably depressed; in proportion to the degree of this action the spinal column assumes lateral curvature, which in turn affects the direction

*Copyright, 1901, by F. Dundas Todd.

of the shoulders, making them slope in an opposite direction to the hips, the head completes the balance by turning or tipping slightly to the left. In this simple and natural action it will be found that the pit of the neck just above the breast-bone is directly above the inner ankle of the supporting foot, giving perfect balance to the figure; in fact, if these points deviate from the perpendicular the figure will seem to fall over. In case, however, of a figure receiving other support such as the body resting against any object, or the hand or arm receiving part of the weight of the body, this center of gravity moves toward the object rested upon. If through the center of a figure, suppose a line be drawn from head to foot it will give the reverse curve or line of beauty, and will assume in the female a fuller "S" shape than in the male.

Variety may be given it by turning the upper upon the lower part slightly, accentuated by a still greater turn of the head upon the shoulders. The arms too, should play a considerable part. Let the left arm hang loosely at the side while the right is partly bent supporting the skirt or some permissible object. A simple pose like this is good either as a bust or three-quarter view, inasmuch as it contains so many diagonals, which are always agreeable to the eye. The illustration is mainly used here to discover the source of mobility in the figure, and though it will be found of practical use, it is not intended as anything arbitrary. By some practice with a model these principles will be found to dispel awkwardness and lead to the discovery of many other poses equally as graceful. In the persons of trained athletes this mobility is naturally more in evidence, and such people fall into a pose with natural ease and grace, only needing recognition on the part of the photographer, if his appreciation be but equal to it. So too the young woman trained in physical culture, possesses greater mobility and ease of action and is naturally apt to take good poses. Much may be learned by taking a few extra negatives of such people then at the risk of taxing their patience,

of which there is little fear. True, there are some who never have felt the beauty or good of physical culture, yet affect its graces unhappily, but the observing photographer will soon discover the false from the true.

Beware of making your subjects stand as do dummies in the clothing stores, that is, avoid throwing the weight of the body upon the heels instead of the ball of the foot. Such postures always look as if the individual would fall backward were it not for the use of a head rest, and since the dummies have them it makes the likeness more complete. In any case let the body lean forward slightly. This in turn will compel a slight elevation of the chin and will give a living movement to the whole action. The value of a knowledge of these principles, outside of artistic reasons, lies in the removal of the source of the photographer's difficulties and the consequent irritation.

It would seem that the average photographer places his camera too high, particularly with sitting figures and bust pictures, but the criticism holds good also with most standing portraits. The impression of the carriage and character of a figure entering a drawing room or parlor is more dignified when seen by a sitting observer than is that of a sitting figure seen by a standing observer. A picture of a figure looked down upon or seen from a level can never be dignified or graceful in its bearing. Let the camera be placed low enough both in the sitting and standing figure to see the head slightly from below; and this will obviate the necessity of throwing back the head as is so commonly done, thus destroying the true pose of the head upon the shoulders, and resulting either in stiffness or an air of affectation.

Simplicity in the arrangement of the lines of the figure, arms and draperies is the great principle to be sought for. Naturally the female sitter in evening, party, fancy or wedding gown, offers the best opportunity for graceful, simple, and artistic portrayal. Be sure to use a gown to offset the figure rather than that the figure should be used as

a dummy to display the gown, and this will depend upon the amount of character given to the pose. A dominant line should convey the general action of the figure; then use the lines in the gown; arms as secondary ones, so as to give the greatest variety without destroying the repose. The disposing of the arms is to many a photographer a bugbear. What can he do with them, for he knows the arms and hands are great factors in the making or unmaking of a good pose.

First of all he must avoid protruding elbows; that is, they must be kept close to the sides. Then the fore-arm must not be bent at right angles to the upper



FIG. 25.

This is far from being an uncommon pose, but it is certainly a rare and graceful interpretation of it. The main line in the hat delightfully opposes the graceful action of the forearms. The whole action of the figure, emphasized by the slightly raised head, is admirable.



FIG. 24.

This is a pose and not a position. The suggestion is that the sitter rose from the chair to take a pose to be photographed. The accessories are overcrowded and shabby in character.

arm, at least such an angle should not be visible. The bend at the elbow may be very acute or obtuse, but never visibly a right angle. He must endeavor to make the arms and hands as expressive as possible by giving them a definite task, at least one of them, something in keeping with the action and attire. If the pose be a thoughtful one a listless and abandoned attitude should be given to the arms and hands, their lines marking beautiful and gentle curves. The arm lends itself with the aid of the wrist, the hand and fingers to the most graceful lines and curves. In its infinite variety of poses it describes indefinite

variations of the line of beauty, the long sweeping curve in the arm proper with the more abrupt turns in the wrist, hand and fingers. A beautiful arm gracefully used is a great help to the photographer.

In a standing figure more particularly, a hat or bonnet of graceful lines may be a great help in a pose, giving a balance to lines in the lower part of the figure and lending the eye to it. But beware of voluminous opera cloaks and draperies of any kind. The frequent and ostentatious use of these articles of adornment does not lead to artistic success. Unless these garments are in exquisite taste and skilfully used they only detract from the picture. If such must be used and the sitter lends herself to persuasion, let it be carefully arranged over the back of a chair or sitter, or partially removed and hanging over the fore-arm; or if the figure be lacking in good proportions let the folds be arranged with great care upon the figure, making up, through suggestion, what the figure lacks. In the more mature the use of such accessories becomes permissible, helping frequently to give a luxuriant and rich setting to an otherwise well-arranged figure. But in the youthful figure it is erroneous to use them for the simple reason that they are superfluous, in that they hide what most should be disclosed—the grace and charm of a lithesome figure.

LETTERS TO THE EDITOR.

PHILADELPHIA, PA.,

April 11, 1901.

Mr. F. Dundas Todd, Editor PHOTO-BEACON, Chicago, Illinois:

DEAR SIR,—At the annual election of the Photographic Society of Philadelphia, held last evening, Mr. George Vaux, the candidate of the Ultra-Salonists, was defeated for election, and Mr. S. Hudson Chapman, a good representative photographer and advocate of the rational school of photography, was elected president by a decided majority. It is also rumored unofficially, that the management of the Academy of Fine Arts have stated that if another Salon

is held there, conducted on the same lines as the Salon of 1900, it will result in closing the doors of the Academy to all future exhibitions.

Thus ends the rule of the "mop and pail" brigade in the Photographic Society of Philadelphia, and I confidently look for a new and improved state of affairs, when good, honest photography will come to the front, and a fair and honest representation will be given to all schools and methods of photographic expression.

With kind regards, I am, very truly yours,

CHARLES L. MITCHELL, M.D.

MAROA, ILL., March 20, 1901.

Photo-Beacon Company, Chicago, Illinois, Publishers:

GENTLEMEN,—I hand you herewith money order covering my subscription for one year, and in connection desire to compliment you on the excellence of your journal, and assure you I appreciate your efforts to make your publication desirable reading for us amateurs. I commenced in photography studying your "First Steps in Photography" for about one month and then made exposures with a box camera and made pictures from the first day, and find it interesting because of the insight your publications have given me.

JESSE M. PRIDE.

CALIFORNIA CAMERA CLUB.

At the annual meeting of the California Camera Club, held April 2, 1901, the following officers were elected for the ensuing year: President, J. W. Erwin; first vice-president, W. B. Webster; second vice-president, H. B. Hosmer; secretary, W. E. Palmer; treasurer, Dr. E. G. Eisen; corresponding secretary, C. E. Ackerman; librarian, I. O. Grosscup; directors—A. L. Coombs, J. J. Lermen, Charles A. Goe, H. T. Henning.

The reports of the retiring officers showed that the club was never in a better condition, financially and otherwise.



Negative by J. H. Field,

WINTER IN THE VILLAGE.
(SECOND PRIZE)

Berlin, Wis.

VOIGTLANDER AND I.*

BEING THE REMINISCENCES OF JAMES F. RYDER.

CHAPTER V.

QUILTING BEE.

For some months I drifted about and at length got into northern Pennsylvania. At one small town the landlady of the hotel where I was stopping asked me one morning if I could not use some other room than the ball-room the following day, as the ladies of the church were going to have a "quilting" and there was no other available room in the village where two sets of frames could be set up.

The quilting was to be followed by a dance in the evening.

Of course I was very willing to vacate the room for the ladies, and so told Mrs. Jenks.

For the benefit of city people who buy quilts and comfortables at stores, who have never made quilts or seen them made, I will explain. Quilting frames are about eight feet long, four inches wide and perforated with holes every eight or ten inches through which wooden pegs or large nails are pushed to hold them together when set up for use. Along the entire length of the frames is tacked listing—the marginal edge of heavy wool cloth—to which the sides and ends of the quilt can be sewed. When not in use these frames are usually kept away up-stairs, out of the way.

It is not considered necessary for all families to possess these frames, but it is expected that owners will lend them, and so a set will do for a neighborhood. As an extra set was wanted for this occasion Mrs. Jenks sent her son over to the Wilkinses for theirs. Mr. Wilkins failed to tie the ends together, but just balanced them upon Henry's shoulder; told him he should carry them steadily and he would get along all right, then started him off. Any boy who has carried quilting frames upon his shoulder knows their tendency is to slip—generally forward, and they are also liable to spread apart at the ends. Henry's efforts to keep

them well bunched and balanced were not successful, for the ends *would* spread apart, and they would slip endwise. He tried to hold them together by leaning his head over upon them, the sharp edges hurt his ear and brought mutterings of bad words from him. In his impatience he pitched them off in the road and kicked them, using meanwhile very objectionable language. He tried again, and after several repetitions of loading and unloading finally reached home and slammed them down upon the porch with such violence as to bring his mother out with the exclamation, "Why Henry! My son, what's the matter?" Henry replied in a voice bursting with rage, "I'm going to run away and go to sea—that's what's the matter! No more carrying dod dummed slippery quilting frames for me." A few minutes later Henry was seen with a piece of pie so large it took both hands to keep it from breaking apart; and bites out of it, surprisingly wide and deep, certified to the abatement of his anger.

Into the ball-room were now brought eight chairs, which were placed six or seven feet apart with the back of each chair toward the center of the room, and upon the backs of these chairs were placed the quilting frames, the holes adjusted, and heavy nails pushed through, thus holding them together. The two sets of frames being set far enough apart to admit of two women to sit at each end and each side, the room began to assume an air of business.

While a part of these good women sewed the bottom or wrong side of the quilt to the listings and spread the cotton batting evenly over it, others were engaged in preparing the blocks which formed the pattern and right side.

"Oh! what pretty blocks," said Mrs. Cummings, as Mrs. Ruggles spread out some squares.

"Yes, I think them be rather pretty. My Melissa done them of evenings last winter, besides cutting and sewing carpet rags for our sitting-room. Melissa is a powerful smart girl, if I do say it as shouldn't say it. See how nice she

has jined them diamond pieces, the stitches done as even as machine could do it. You notice that red and white piece? Well, that is a piece of my little Amy's dress that died when she was only four. And this is a piece that the Minister's wife give me — the Minister that was here before this one. Here's a piece of my mother's wedding dress. I've kept it laid away all these years; this is a piece of dress I wore when Ruggles come a sparking me. Oh yes, they're ready to baste it onto the lining now, but I'll tell you more about it when

had the impurence to come to see Melissa, but she give him his walking papers pretty sudden.

"They're poor as skimmed milk, but they must keep five dogs, besides all their young ones. Let a circus come to town and by hook or by crook they must all go. I'll bet a cookey they'll get their Dogereotypes taken now this new man has just come, and next winter we'll have to put in and help to keep them out of the poorhouse; but some pork will boil so.

"Now, Miss Cummings, as you aint



Negative by W. L. Whitson,

THE LANE IN WINTER.

Chicago.

(THIRD PRIZE.)

we've got it off the frames, and hemmed."

"I see you've got some new neighbors, the Sayleses. Be they our kind of folks?"

"Well," said Mrs. Cummings, "I don't know them much, they've sent over twice for a drawing of tea, and they've borrowed our brass kettle and aint returned any on 'em yet."

"Well, I swan!" said Mrs. Ruggles, and continued, "I 'spect you know the Joneses. They aint much! There's their boy Bill, he don't know enough to come in when it rains. You know he

lived here very long and don't know folks very well, I want you to be careful what you say to that Miss Higgins. She's a regular tattler and makes more mischief than any three wimmen in town, *but for all the world don't tell her I said so.* Why! here she comes now!"

"Why! howde do, Miss Higgins. I'm so glad to see you. How's Mr. Higgins and the children? I didn't see you to meeting last Sunday? Miss Higgins, this is Miss Cummings. She's lately come to the village. Almost a stranger yet, I'm sure you'll like her first-rate, she's come from out west, she's a wid-

der. I want you and her to come and take a cup of tea with me soon's you can find it handy, and we'll get better acquainted. Mebbe Mr. Hunter will come, his wife died last fall and the poor man is very lonesome. Why here! I see you wimmin are all started. Just bite me off a long needleful of thread, Miss Jenks, and pass it over. I aint going to let nobody outquilt me."

"Well! if here don't come the Minister hisself! Why Mr. Goodman, you can't quilt. I 'spose you jist come to keep us wimmin out of mischief. I heard a lady of your congregation say you was the dearest man we ever had here. You can stay here all right but you must be good, and not hender us."

"I should be very sorry, Sister Ruggles, to be a hindrance to you. I thought it would be friendly to look in upon you, as I am interested in all church matters. I must make my call short. I have more work to do upon my sermon for next Sabbath. I'll bid you good morning."

"There!" said Mrs. Jenks, "you've driven him off; you're always sticking your foot in it. He wouldn't thought of going only for what you said."

"Well! Miss Jenks, a body can express thei'selves, can't they? There's no law agin it, is they? I didn't say 'twas you said he was so sweet and dear did I? That Chambers girl with red hair and cross eyes is kinder settin' her cap at him. She looks like a charge of bran from a musket had been fired into her face, but I can tell you there's something 'sides 'nits and lice' in *her* head. You wake up the wrong passenger if you take *her* for a fool. The Minister says there's witchery in her eyes. Well! I vum! if they aint got their quilt off from that other frame! You wimmin talk too much here. You can't talk and work. I'll bet they's some long stitches in that quilt—they've set out to beat us and I guess they have."

"Now ladies," says Mrs. Jenks, "As soon as we get this quilt off we'll clear out the frames and the chairs and 'red up' the room for the dancing and then we'll go down stairs, drink a cup of tea and have a bite of something to eat."

Mr. Jenks here appeared and announced to his wife that the table was set, the tea ready and her company could come right in—"from labor to refreshment."

"That, ladies," said Mrs. J., "is some of Jenks's lodge talk. He's pretty full of it since he's joined the Masons. These Masons have ways of expressing thei'selves that's very mysterious."

As the ladies filed in and took seats at the table his wife said, "Now, Mr. J., you and the girl just wait upon the ladies while I pour the tea. Miss Cummings, how do you take your tea?"

EDITORIAL TABLE.

ANDREW J. DOYD & Co., 323 Washington St., Boston, Mass., announce that the 1901 edition of their Encyclopædia will be ready early in May. In their announcement the firm say:

"The Encyclopædia this year will follow the general plan of the 1900 issue. There will be a thorough overhauling of the photographic market. Things that are new and worthy will be listed and described. There will be some new special articles of interest, such as 'Ray Filter Photography,' by one of the foremost opticians of this country; 'Progress and Development of Transparent Film,' by L. B. Jones (the Kodak literary man); 'Photo-Micrography,' by L. B. Elliott, editor of the *Journal of Applied Microscopy*; 'Isochromatic Photography,' by Mr. Beneke, chemist-in-chief of the Cramer Dry Plate Company; 'Instantaneous Photography,' by Chester F. Stiles, associate editor of the *Photo Era*; and 'Flash-light Photography,' by F. Dundas Todd, editor of the PHOTO-BEACON. The popular Instructions and Hints will be printed with a good many additions that the experience of a busy year has suggested.

"The book will probably be a little larger than last year. Postage will be about 11 cents, cost of paper about 13 cents. Price charged will be 20 cents, which will not quite pay these items, to say nothing of the compiling, printing, electrotyping, engraving, etc. This share of the cost we hope to get back in the form of orders from many friends all over the country."

DEVELOPMENT.*

CHAPTER II.

This fact is so important as the true foundation of any correct idea of development that I feel bound to try to engrave it upon your memory by means of

ANOTHER MENTAL PICTURE.

I have compared the different tones or darknesses in a negative to steps. Let us imagine that a father wishes to educate his baby boy (who can just toddle) in walking up and down stairs; and that out in the yard the mason has built a tiny flight of three steps, each with an equal shallow rise just suitable for the baby feet, as you will see in Fig. 7. A year or so passes; the father wishes to

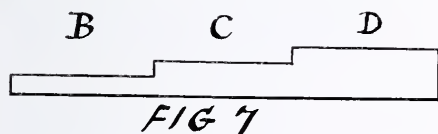


FIG 7

continue the training, but the steps are now too shallow, and the mason is called in to add to them, but in such a way that the rise of each step shall still be equal. Fig. 8 is the result, the steps being steeper than before. As time goes on these are not steep enough to complete the stair-climbing education of our little friend, and again the mason is called in. He wants to build a new flight of steps, but he is made to add to those already existing on the same ground space, and the steeper flight of

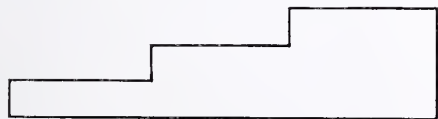


FIG 8

steps shown in Fig. 9 is the result. Notice the increase of steepness as the steps are added to. Notice also that the mason has to add much more thickness to D than he has to B when he is called upon to increase the inclination of the steps. The process of development runs exactly on these lines. As development proceeds, the various tones are

“built up.” The building-up process does not consist of adding the same amount of deposit on each tone, nor, on the other hand, is the deposit only on the

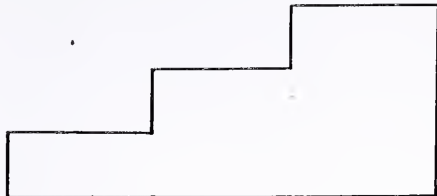


FIG 9

darker tones, but a definite proportion is added to each, and the steepness of gradation increases (as you will see by looking at the figures) as development proceeds. Broadly speaking, no alteration of the developer gives the power of adding to certain steps and not adding to others; they are *all* added to as development proceeds, but still the steepness increases until what is called “fog” commences and then the lower steps begin to fill up.

It is constantly presumed by writers that one developer has a tendency to add to the higher steps, neglecting the lower ones; while another class of developers pays most attention to the lowest steps and does not do so much to the upper ones. This is quite false; all varieties of developer (after they have well started to work) do a definite proportion of work on *all* the steps of gradation, this proportion being decided by the exposure.

I do not think that I have explained the naming of the tones. It should be kept in mind that the tones (or steps of gradation) are named from their appearance in the *positive*, and that these names are not altered when the same tone is recorded in the negative. Thus in Fig. 1 the tone marked D is called the “high light” because it is the lightest tone in the picture, C and B are “half-tones,” and the background is the deepest tone or shadow. As a rule, the shadow is not all equally black, and therefore “deep” or “low” tones are called “shadow detail.”

When we come to the negative (Fig. 3), although D is the blackest

* Copyright, 1900, by F. Dundas Todd.

tone it is still called the "high light"; and although the deepest or shadow tone is now clear glass (or almost so), it is still called by the old name.

STAGES OF CONTRAST.

In Fig. 10 you will see the negative image of our white pyramid as it appears at three stages of development. A metol-hydroquinone developer (you will know what this means later on) was applied to the exposed plate, and the image appeared in half a minute. X was taken out and fixed at twice this time (one minute from pouring on). Y was a similar exposure taken out at four times the appearance (two minutes), and Z at seven times the appearance of the image — that is, three and a half minutes. Perhaps we had better halt here and consider what the negative is required for. It is not in itself a finished photograph, but has to be put in a printing-frame with a piece of sensitive paper behind it, and exposed to daylight. If there is *sufficient contrast* between B, C and D we shall get a "print" (as the paper photograph is

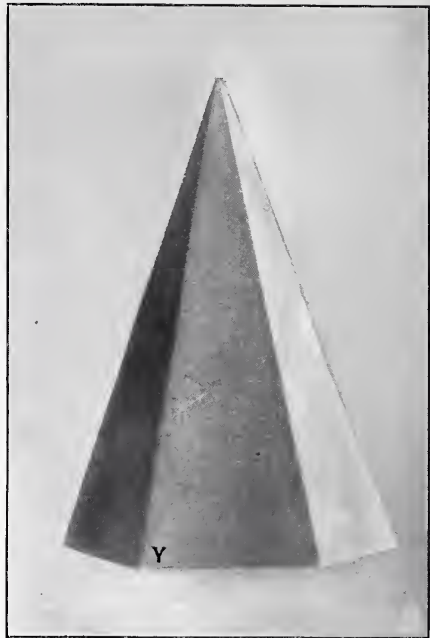


FIG. 10, Y.

called) having the full amount of contrast, as shown in Fig. 1. But if we were to use the thin negative shown in No. X of Fig. 10 (the one taken out at an earlier stage of development) we should get a flat gray print with very little contrast between the tones. A print from No. Y would be better, while one from No. Z would probably give what is wanted — the right amount of contrast between the tones. It is possible to develop so far that there is *too much* contrast, in which case both C and D would have very dense deposits on the negative which would not print through and be represented by white paper in the positive or print. This defect of overdevelopment gives a snowy or "soot and whitewash" effect in the finished print.

I can not too forcibly put before you that the chief question in development is a

QUESTION OF CONTRAST,

and that this can usually be secured by regulating the time the developer is allowed to act.



FIG. 10, X.



FIG. 10, Z.

I must point out, by the way, that Fig. 10 must be taken as merely illustrative. A really vigorous printing negative is much denser in all its gradations than appears in No. Z, but it is difficult to show how dense on a half-tone block.

ALFRED WATKINS.

MY EXPERIMENTS.

No. I.

It is easier to run a perambulator than it is to run a magazine, and this statement is not to be taken as implying that my experiments have led me into the running of either of them.

My evidence on this point would be objected to in court as incompetent, for it is all hearsay, but it is good enough for you and me. Todd told me about it and he knows — he has tried both — and he says that the magazine business is no end of a hard one to run.

There are twelve months per annum. Every month the magazine man has to produce a book that shall be so good that his subscribers will be in the fidgets

until the next one comes out. He has to give them sixty or seventy solid pages of bright, new and interesting reading matter every month; and show them nice pictures, and get the magazine mailed promptly on the day.

Is it easy? It is not — according to Todd.

THE PHOTO-BEACON, you see, must be fresh and breezy all the time, and, to be consistent, it must limit its freshness to photography and its breeziness to the advertisers. That narrows the field, but makes the work harder.

Todd said to me the other day: "Martin, you are an experimenter; can't you write something about your experiments for my readers? They want something interesting, you know, and your experiments should help me to interest them."

I hope for your sakes and for his that he was right; anyway, I agreed to tackle the job, and here she goes.

I made some money once — easy money — and seeking for a chance to blow it easily and effectively, bought a No. 4 Daylight kodak. That was in 1890 or 1891. I don't remember exactly, and I bought it from a near-sighted man in a spectacle store. He said that it was loaded and told me how to work it.

I went home and made a few snapshots that evening in the house — four or five of them — and the next day took the machine with me on a trip to Duluth. On the way up I made a few instantaneous exposures through the train windows as we passed bright bits of scenery at sixty miles an hour, and caught the brakeman slyly, once or twice, as he scurried through the car. By the time I reached Duluth, eighteen of the twenty-four exposures had been made, and there were six left over for the next day.

Business was so engrossing, however, that there were no further gems made until two days later, when I stopped off at Pine City. Pine City is a small town on the Snake river, Minnesota, and it is one of the best points for black and silver bass and wall-eyed pike fishing that I know of. Whenever I pass that way in the season, I make it a point

to stop over long enough to do a few things to the fish. This day I meant to fish and to make some genre fishing pictures that would beat anything ever shown, so I got Johnny Vaughn to take me out in his boat for a few hours. Johnny Vaughn was county treasurer up there, and when he wasn't treasuring he was fishing—he could generally tear himself away from the office at any old time to go fishing.

We rowed up the river about a mile, trolling, and then I got a strike. It was a fine big pike. I hooked him hard—handed Johnny the pole at once and grabbed the camera. Johnny was a swell fisherman and I took one snap at him as he stood in the other end of the boat playing the fish. Then I got another one just as he hauled it in over the side. Here were two pictures such as you seldom see—snap-shots of a man fishing and of a man landing the fish, and both made at four feet distance in the same boat.

We caught fifty pounds of pike and black bass in less than two hours. Johnny strung them together and I had him pose with them with a bright Minnesota sun for a background. To make this bit specially good, I gave it a short-time exposure of about two minutes and used up the rest of my film-making duplicates. Johnny wanted me to be sure and send him some prints and I promised him a dozen of them.

Before I bought this camera I had never known anything about photography, but I could see, as soon as I bought it, that it was all dead easy. Of course, I didn't know anything yet about developing, but the man that sold me the camera said it was easy enough and he would show me how, so I went to him when I got home and we entered the darkroom together. I wanted him to do the work out in the store where I could see him better, but he said that the darkroom was always used for that sort of work.

He shut the door, turned on the red light and made me stop smoking. Then he got down some trays and poured stuff into them out of various bottles.

When everything was ready he dis-

joined the camera and pulled out the roll holder. He stripped the black paper and unwound and cut the film into lengths, after which he soaked them in a tray of water and glycerin and then immersed them in what I now know to have been a pyro developer.

After a few minutes I asked him how long it took before we could see anything in the film and he replied that as a rule they should have been fully developed by that time, but something seemed to be wrong. He cross-questioned me as to how I had made the exposures and seemed to be amused at my replies, but said it was curious that something or other had not appeared on those time exposures.

After ten minutes of patient waiting something seemed to dawn on him. He took a length of film out of the tray and, after covering the tray again, turned on some white light that made me blink. He looked at it a minute and then said to me: "Young man, you are lucky. Your first experience has been cheaper than I expected, after listening to how you made your exposures, and instead of spoiling a whole roll of film, you have only exposed a ribbon of plain paper. This is a dummy roll that got into the camera by mistake."

I told him that he was pretty lucky himself that I didn't rap him one on the nose for putting me to all the bother and expense of a trip to Duluth, to say nothing of the mortification of having to tell Johnny Vaughn that I had nothing but regrets to send him; but after he had told me that even if I had had a roll of good film there would have been no picture in the whole bunch, on account of my original methods of exposure, and after he loaded the camera with a roll that he knew was all right, I forgave him (with reservations), and went slowly home.

This was experiment No. 1 in photography, and I was half tempted to sell the camera right then and quit, but I persisted.

In my next letter I'll tell you about the first negatives that I got, and some prints that I made from them.

RALPH MARTIN.

**PHOTOGRAPHIC PRINTING
PROCESSES.***

BY LOUIS H. HOYT.

CHAPTER V.**FIXING.**

As soon as each print is toned it is placed in clear water until all are done

ing placed in the hypo bath. It used to be considered necessary to have a little salt, or a few drops of acetic or other mild acid in these wash waters to act as a short-stop, or in other words, to stop the toning. It can do no harm to use either in very small amounts, al-



Negative by G. E. Vallean,

Ottawa, Canada.

A FROSTY NIGHT.

and then the batch should be put through one or two changes before be-

though I can not say that I believe it does any good. I have toned batches of prints numbering hundreds and even

into the thousands and not used anything but plain water. The fewer chemicals used the better.

Care must be exercised in preparing the hypo-bath. A handful of hypo dissolved in an unknown quantity of water may give good results once in a while, but when it is possible to work with certainty, guessing is poor policy. I got an idea that I could make a fixing bath of the right strength by tasting it. I practically lost a good many batches, before experience taught me that I was traveling the wrong road. Perhaps my tasting apparatus was out of working order. I know of a number of printers who are making the same mistake every day and from the appearance of their work I think one of their senses is defective also. The hypo sold by regular dealers now-a-days is of a very even grade, so far as quality is concerned, but is sold in such vastly different forms that it cannot be accurately measured by weight. It will be found in large lumps and small crystals and also ground and dried. Some forms will be of twice the strength of another, weight for weight, when dissolved. The bath should be tested for strength with a hydrometer. These little instruments are inexpensive and there is no excuse for not having one. Occasionally we meet a camera-owner who offers as an excuse for not having these little necessities that he only makes a picture (?) once in a while and thinks it not worth while to be properly equipped. It is of no use writing to benefit one who has such an opinion of the work. He never got a presentable negative or print unless by accident, and never will.

Ordinarily a good strength for the fixing bath for printing-out paper is between 15 and 18 hydrometer test. The makers of the paper give the result of experimenting for the best results in the directions which they give with the package. A slight variation from their figures will make no difference, but it is good policy to follow the directions and be accurate.

When the prints are placed in the fixing-bath they should be put in separately and while fixing they should be

kept apart and in motion. Some makes of paper bleach much easier in the hypo than others, and it is necessary to watch for indications of their doing so. It is usually considered proper for prints to fix for about fifteen minutes. I would not advise anyone to keep prints in the hypo for a longer time, as it will do no good and might do harm. My opinion is that ten minutes fixing in a bath testing between 15 and 18 is right. A course of practical experiments which were made in one of the largest print-rooms in the country showed that this was amply sufficient.

Prints when first placed in the hypo bath will usually change in color somewhat; generally back to a more orange tint and then gradually darken until all unevenness of tone disappears and the whites clear. After the print assumes the even tone and the orange tint disappears the fixing is practically complete, but it should be allowed to remain in the hypo for some time longer to insure thorough clearing.

Gelatin prints are very apt to become soft, especially in hot weather, or if the baths or waters become warm enough to act on the gelatin film.

This is not a defect in the paper. Some brands are made this way purposely. Experienced workers that desire the best results will select a soft paper every time, claiming that should the occasion require it, they can do the hardening themselves.

Very little hardener should be used in the first wash water; just barely enough to toughen the film so that it can be safely handled during the toning. Hardening paper should be done in the fixing bath because it is the most practical. Theoretically, it is advisable that the print should be fixed first and then hardened, and I have often heard this advocated by amateurs. Theory is well in its way, but life is short.

A solution of alum, added a little at a time, using just enough (and mind you this is a very small amount) to make the surface feel firm to the touch answers very well. Alum is perfectly safe to use, in small quantities.

The following hardener is one that I

have used for a long time and it has never failed to give good results. It can be made up in large quantities and kept in stock form, using enough when necessary to produce the results wanted.

Water	32 ounces
Borax (powd.)	3 ounces
Sulphite soda	4 ounces
Alum (powd.)	8 ounces

For first wash use about one ounce of hardener to each quart of water. In the fixing bath use about one ounce to from sixteen to twenty ounces of solution. Prints may be hardened too much. In such an event the film will probably crack if the prints are dried before mounting, and will also do the same while being burnished. Too much is probably worse than none at all.

Don't save a hypo bath for future use, as it will almost invariably produce yellow whites, after being used a few times. Hypo is so cheap that it hardly seems possible that anyone, for the sake of economy, would want to keep and use it repeatedly; yet we receive dozens of letters asking if it would not be possible to use it over and over, for this reason.

The final washing after fixing must be very thorough. Handling the prints by hand, keeping them well separated and in motion is the best way. If still water is used it should be changed often. Washing by hand for half an hour in ten or twelve changes of water, will be quite sufficient if the work is done thoroughly. Washing for the same length of time in running water, is sufficient, but care must be taken to keep the prints separated and not allow them to come together in a bunch when the tray or dish overflows. Longer washing will do no harm and is generally advisable. The use of so-called hypo-eliminators is all foolishness. You don't know what you are using and it isn't practical anyhow. The probabilities are that you might need an eliminator for the eliminator and so on.

Concerning combined toning and fixing baths I have very little to say. My experience with them has been rather unsatisfactory. There are any number of formulæ published and all seem to



Negative by J. H. Field,

Berlin, Wis.

WINTER.

work about as poorly as the others, so that if it is desirable to use one, the printer can select almost any of them at random and learn the rest for himself. Many advise their use as time-savers, but I plead not guilty.

To mount a print in a neat manner seems to bother most amateurs. Even though the print be a good one from an A1 negative, the effect is spoiled if it be trimmed with ragged, crooked edges, or has light or dark uneven margins from not being trimmed small enough. If a print is to be mounted directly from the last wash water, the paper should be trimmed before printing. For prints from a 4 by 5 negative the paper should be trimmed to about $3\frac{1}{2}$ by $4\frac{1}{2}$. This will allow for a quarter of an inch all round, which is generally enough to prevent the ragged border of the negative from printing and show-

ing on the finished work. If the print is made without trimming the paper, it should be dried after toning and washing and then trimmed. Prints may be dried by simply laying them out on paper or cloth that will not stain them, or preferably between clean white blotters.

Trimming prints with a pair of shears is not practical. It takes too much time and the edges are seldom straight. A better way is to make a glass form about one-half inch shorter and narrower than your negatives. You can clean an old negative by soaking in hot water and then cut off a half inch from one side and one end. Lay a piece of fine sandpaper on a flat surface and smooth up the edges of the glass by grinding on this paper, so that you may not cut your fingers.

Now lay your print on a larger piece of glass, face up, with the glass form on top. The form being transparent, you can see just what part of the print is within bounds. Press firmly down on the form and trim the print by drawing a penknife along the edges. Your print will then be square and have straight edges, with no bad margins, and even though it isn't the full 4 by 5 inches, it will be much more presentable in appearance.

Mount prints wet. If they have been dried, soak them for a few minutes in water and stack them irregularly, face down, on a mounting glass and press out all the water you can. Apply the paste to the top print, brushing it well into the fiber of the paper, especially about the edges. Pick it up with a hat-pin or point of knife-blade and lay it on the mount in position. Lay a piece of blotter or damp cloth on top and roll into contact with the roller. Then paste the next one and so on until all are done and lay away to dry. When dry, spot out the light defects with spotting colors or india-ink applied with the point of a fine spotting brush.

Burnish with hot burnisher after lubricating print by rubbing the face with a cloth which has been rubbed against a piece of hard soap, Castile preferred.

BEGINNERS' TROUBLES.

NO. V.—PAPER FOR BEGINNERS.

The most suitable paper for a beginner to use, is the one most simple to work. If his negatives are all good and plucky, that will be blue print paper. But the *sine qua non* of a good blue print is a good negative to make it from. Gelatin print-out paper is simple enough, and it is often possible with it to get a passable print from a negative that would be a complete failure if printed by any other process. Self-toning Aristo is equally good for such negatives, and it is still more simple; so simple indeed that there is almost nothing to learn.

Whatever printing process is chosen it should be thoroughly mastered before another is undertaken. It is best also to stick to one brand of paper until you know how to use it. By the time you have gained a knowledge of the peculiarities of gelatin paper you will have some favorite negatives that you will want to see printed on some other paper. Vinco, Velox, or some similar paper ought next to be taken up. When each of the more common printing processes have been mastered, the ambitious photographer will be in a position to judge for himself which is the most suitable for each particular subject or negative.

FLASH-LIGHTS AND FLASH-POWDER.

The peculiar staring expression in the eyes of a flash-light portrait sent me by another reader of the PHOTO-BEACON, comes from making the exposure after the sitter had been for some time in darkness. In the darkness, or even in a very dim light, the pupils of the eyes soon become dilated and the eyelids are unconsciously opened wide to catch the faintest beam of light. If we could see the eyes of a person suddenly brought from darkness into a bright light, they would have the expression complained of by our correspondent. The remedy, of course, suggests itself. Simply do not extinguish the light by which you arrange your sitter until the exposure is made. You need have no fear that the light will

affect the plate unless it is actually included in the picture. An electric arc, if a reasonable distance from the sitter, will hardly make an impression on the plate during the few seconds it may be necessary to expose it before making the flash.

In my note-book I have a number of formulæ for flash-light powder. All are good, and one has never been published, so far as I know. I also have four eyes, two of which I did not need before I mixed flash-light powder. But I am very fortunate to be able to see even with glasses, so I am not going to complain. Neither am I going to publish that formula which I worked out with such care. The powder was perfectly safe, however. I repeatedly ground it in a mortar (in small quantities, of course), just to prove that it was harmless. But when I mixed four pounds of it, and had half a pound bottled up, the remainder exploded without cause except the perverseness of its own disposition. One of the four brick walls surrounding me was pretty well braced and it withstood the shock, while the other three gave way and the roof took wings. To that solid wall I owe my life, for I stood between it and the powder, and the force of the explosion went every other way. To prove that the powder was perfectly safe and wouldn't burn except when it was wanted to, I may add that the bottle containing the other half-pound was picked up among the debris when the workmen, several weeks afterward, were preparing to rebuild the house. The bottle was unbroken and the powder as good and harmless as ever.

STAMP PICTURES.

When most of the regular studios are making stamp pictures at twenty-four for 25 cents, it would seem that this class of portraiture should be left in the hands of the professionals. Of course, no one will want to take them for profit, but one reader of the *THE PHOTO-BEACON* asks if his camera can not be fitted to take them, as he wants an economical way of practicing. This is quite an easy matter. Suppose the

camera is a 4 by 5 and you want to take six positions on a plate. Remove the ground glass and draw a line across it, on the rough side, of course, with a lead-pencil, separating it into two sections, each 2 by 5 inches. $1\frac{3}{4}$ inches from each end draw another line at right angles with the first. That will divide the ground glass into six sections. The middle two will be $1\frac{1}{2}$ by 2 and the others $1\frac{3}{4}$ by 2. A quarter of an inch may now be spared all around the plate and still the stamps will be $1\frac{1}{2}$ by $1\frac{3}{4}$. Next make three slides of thin dark cardboard and mark them like the ground-glass, to take the place of your regular slides. Now cut out one of the six sections of each of these slides. The lower right-hand corner of one; the lower left-hand corner of another; and one of the middle section of the third. Next mark the glass of your finder with a diamond or a delicate line of oil paint, dividing it into six sections corresponding to the ground-glass. These marks will in no way interfere with the use of your camera for other work, and the only apparatus you will need for the stamps is the three cardboard slides.

When you come to make your stamp negatives, let the image of your sitter



Negative by Mrs. Hindle,

Jamestown, N. Y.

LOGGING.

occupy one, say the lower left-hand, section of the ground-glass. Place the plateholder in position, draw the regular slide, and insert the cardboard slide having that section removed. Make the exposure in the regular manner. Now, with the aid of the finder, adjust your camera so that the image will fall upon the upper left-hand section of the plate, reverse the cardboard slide, and make the second exposure. The other exposures are made in a similar manner, each slide serving for two negatives.

J. EDGAR ROSS.

OUR ENGLISH LETTER.

Photographers, as a class, are exceedingly conservative, and we find, as a natural consequence, the same sizes of plates in use at the present time as were employed in quite the early days of the art. If the proportions then arrived at had been ideal or anything approximating thereto, there would be no need to grumble, but as a fact, there is neither uniformity nor pleasing proportions to justify their continued adoption. This fact prompts me to inquire as to the possibility of the creation and general adoption of a series of universal standard sizes of plates.

The difficulties of carrying out such a scheme in practice would, of course, be very great, but not, I think, insurmountable, and the ultimate convenience to everyone where the system became universal would more than counterbalance the initial difficulties.

It would not perhaps be an altogether easy task to decide upon the *best* proportions to adopt, but a thoroughly representative international committee, if appointed, should be able to arrive at a result that should satisfy the majority. The simplest plan would be to first decide upon the dimensions of the smallest size, and then to let each size larger be of just double the dimensions of the one preceding it, the relative proportions being preserved throughout.

The smallest size in general use in this country is $3\frac{1}{4}$ by $4\frac{1}{4}$, but its proportions are by no means ideal, while in America 4 by 5 is the nearest ap-

proximation to the English quarter plate; the practical result is that the stranger in either country is practically unable to obtain a fresh store of either plates or films, or at best is limited in his choice to one or two particular brands.

Apropos of the above remarks I notice that Messrs. Marion are just introducing a new series of their well known "Swallow" brand hand cameras, designed to take twenty-four cut films, or twelve plates, 3 by 5 inches in dimension. Although I rather deprecate the introduction of so many odd sizes the very fact that such are from time to time introduced is in itself an argument in support of the need for an alteration, and it is beyond question that many workers are dissatisfied with the squareness of existing sizes.

Undoubtedly one of the most practical and useful pieces of apparatus that have ever been placed in the hands of photographers is the "Chapman Jones" plate tester. This simple instrument, which anyone can use, will give reliable information regarding the plate tested upon the following heads: Speed, possible range of exposure, range of gradation, solar sensitiveness, comparative size of grain, degree of halation, and the most suitable light for development. The thanks of all photographers are due to Mr. Chapman Jones for having given them the means of testing their plates, and acquiring much valuable information in regard to them in a simple yet scientific manner. The apparatus, which is beautifully made, can be obtained from the manufacturers, Messrs. Sanger, Shepherd & Co.

While writing these lines we have just learned, with deep regret, of the passing away of one who has performed a great life work in elevating and idealizing pictorial photography. Henry Peach Robinson, whose work was probably as much admired in America as in this country, is no more. Although he professed a complete ignorance of scientific methods of working, probably few have surpassed him in his wonderful mastery of all that pertained to the technic of his art, and to this fact his

great success in producing pictures by combination printing from four or five different negatives must be attributed. His influence upon artistic photography will long be felt, even should his memory fade.

The trouble of developing rollable

a wedge to a wooden drum, which revolves in a deep porcelain dish over which it is supported by means of stout elastic bands to two upright rods. In use the free end of the film is slowly drawn to and fro, the rubber springs being sufficiently strong to cause the



Negative by W. C. Meyers.

Brooklyn, N. Y.

PROSPECT PARK IN WINTER GARB.

films is, perhaps, the only drawback to their employment. Several contrivances, more or less effectual, have been devised to facilitate the operation, but none strikes me as being more simple than "The Wyndham Developing Machine." The roll of film is attached by

film to rewind itself upon the drum when the pulling action is relaxed. The makers are Geo. Houghton & Sons, High Holborn, London, and the price \$2.

Ferguson's method of copper toning for bromide prints and lantern slides

is a most valuable means of obtaining warmth of color, its only drawback being that three separate solutions are necessary, the use of which involves a little trouble. This is now obviated by the introduction, by Messrs. Burroughs, Wellcome & Co. of their copper-ferrocyanide toning tabloids, one of which, dissolved in an ounce of water, will produce a toning bath of the strength proposed by the inventor. I have found, however, in my own practice, that it is better to increase the amount of water by fifty per cent. The toning action proceeds more slowly, and it is easier to secure the particular color required. Using the full strength the change of color is very rapid, and the action not quite under control.

JOHN A. HODGES, F.R.P.S.

PHOTOGRAPHY.

(A paper by Eva Lawrence Watson, read before The Photographic Society of Philadelphia.)

There are probably no words less understood and more misused than *art* and *artistic*. It is the common use, when a thing is vague, unintelligible, affected, or in some way false, to call it artistic. Much that is ingenious and skilful craft is called art. It would be difficult, if not needless, to make a new definition of art. Tolstoi has rehearsed in his book on the subject all the varying opinions and definitions, and his own expression is the simplest and most comprehensive that I know. So that whether art is intellectual or spiritual, beautiful and ugly both, immoral as well as moral, one element in us it must appeal to — the imagination. And it is for this reason that photography has had to develop methods of avoiding the weakness and monotony of its mechanical reproduction of everything within range of the lens — of concentrating the interest in order to provide a new means for making pictures which could rightly be called artistic. The question has never been what is or what is not artistic, but whether photography was plastic enough to produce artistic results, and that it has been sufficiently proven to discount the prophecies of failure from the unhelpful, and

the amusing condemnations of the ignorant.

There is no authority on art to whom to refer for judgment. If through a picture you can give to one other person the feeling which impelled you to make it you have done well, you have found recognition, and if one understands another will, and another in the course of time. The best things do not meet with general instant recognition.

Photography bears a resemblance to nature in this — the enormous amount of material thrown broadcast on the world, very little of which is fit or expected to survive. An immense lot of energy and stuff are apparently wasted in order that there may be a very special choice as the evolution of the creature goes on. It has been very easy to make numberless photographs without thought, but what now is required is special skill, endless patience, and more knowledge and study than most of us have been able to obtain. Then perhaps a master would be able to make two or three pictures and several portraits in a year which would be worthy to live as works of art. I am speaking very seriously of great works. Sketches and studies are part of the daily exercise of picture-makers, and much material, interesting and profitable to look at, can be shown which need not be mistaken for masterpieces nor shown as such.

We are suffering just now — we always have been — from influences, and though the influences are better than they used to be, the disposition to imitate proclaims that photography is still young. Perhaps in its youth it could not do better than to imitate good things, but I think it could. It could do better by studying them. The painters enjoy some of our "painty" effects, and misunderstand others. They recognize our imitations but hurt us by identifying our small resemblances with schools of painting, ignoring our identity, calling a strongly lighted subject a Rembrandt, a hand and glove mean Titian, a long sweeping line indicates Alexander. Prints are classified as Corots or Constables, Whistlers or Holbeins, and

we have been feeling flattered — in one sense we should — but it is a false compliment. In spite of all this the individuality of the man is claiming recognition. This is acknowledged on every side. The personality of the photographer is felt in the trivial French character of Puyo's prints, in the strong awkward compositions of the Hoffmeis-

Eugene, or a Steichens, and feel the personality of the man through his special feeling or the shape of his idea, and far from our thoughts is the question of whether it is a Voigtlander lens, Seeds 27X plate, platinum, or gum bichromate print.

Any means that is photographic should be used; the skill of the hand



Negative by Frank E. Marks,

Camden, N. J.

A RUTTY ROAD.

ters, and above all the supreme evidence of personality is seen by reflection, for instance, Mr. White's influence so unmistakably stamped on the charming prints by Mr. Edmiston shown in this year's Salon. This personality is not to be worked for; it is the inevitable sign of life, the unconscious expression of the man in his work. We look at pictures on the exhibition wall, a Dyer, a

in manipulating plates and prints is not illegitimate. Foreign methods, such as working up in water-color, are destructive of the purity of the art, as the introduction of gems and tinsel into painting and sculpture, and foreign phrases into a piece of English literature, are acknowledgments of unskilfulness or the disinclination to work.

There is an idea about that we

see as the lens does. It is a very great mistake; we do not, either mentally or physically. The eye can not focus on more than one spot. The lens focuses on one entire plane and with persuasion can be forced to give equal sharpness to everything within its range, from the distant horizon to the near foreground. The difficulty of avoiding this stupid and uninteresting aspect of things is probably the reason why there has been more successful indoor than outdoor work, although that is due partly to the fact that the light at least can be concentrated in an enclosure. A feeble admission of this difficulty in mechanical photographs is the usual habit of dragging a figure into a landscape which has no sympathy with it, with the firm conviction that it "introduces life," as they say, into something thus acknowledged to be dead. The only reason the figure introduced draws attention from the general monotony is that it is an intrusion, usually a self-conscious one.

I do not mean to say that the indoor work is better than the outdoor work, that is, pure landscape, but there is more good work in which figures are used. I am compelled to say that the worst things done in photography have been with figures, deliberately planned, posed, and exhibited as "artistic." The deadly self-consciousness of models, the unfitness of objects and clothes used, and the poverty of imagination on the part of the man behind the camera, gives one a sense that one sees a straight photograph of a tableau, a living-picture arrangement, or the misfits of the grand opera choruses with calcium lights. A painter said to his pupils: "Art is an animal not to be caught by detail." The idea is good enough to be remembered by photographic students. Perhaps the commonplaceness of many photographs is mainly due to the absence of any definite intention at the start. We soak our plates and our paper, but we do not soak ourselves enough in our subject. We should follow up a picture, visit it often in many lights and seasons, carrying it about in our memory to its final completion. We may overexpose our plates, but we can not get too strong a

mental impression. It is good practice to *sketch* with the camera, using no plates, but studying on the ground glass, becoming familiar with the disposition of our lens; so that it may not surprise us, finding out and avoiding what is impossible, while it is impossible, studying how to work the camera to get our point of view, as well as to adjust our eyes to the lens as to new spectacles.

A photographer needs a special training or quickness of perception. It is his advantage to be able to retain by instant exposure of a plate some things which could not or would not enter his mind to conceive, and to do this his judgment and keenness must be constantly under his control. We can not afford to lose the suggestions of the *happenings*, which, like the conjunctions of some planets, a man may be able to see only once in his life, and in instances where it is some line of beauty, or some expression or sentiment, or intense feeling, there is no way of repeating the effect. But the camera can catch it if the man recognizes what he wants, and by his memory he can work the material into rare pictures. Such material is, like nuggets of gold, likely to contain much dross, because stuff is there which also happens and is not by choice, and the royal right of elimination must be used to dispose of whatever detracts from the value of the thing. Good judgment and a sense of abstract beauty, the realization of the embodiment of ideas in forms and lines, in light and sound, make that quality called "feeling," which is the personality, the "temperament," of an artist, a painter, photographer, writer or musician.

When it becomes better understood that many false effects gotten photographically can be controlled by the skill of the photographer, more people will gladly turn to it as a worthy means of expressing their ideas and impressions, and we shall have schools of photography to teach composition and the relation of tone to color as well as the use of the camera and chemicals and manipulation of prints.

There is one open field yet very little

touched by the camera, that is, illustration, and I look for great things in that direction in the future. Some good work, but little, has been already done. At present there is something like reciprocity between the picture-maker and the poets, and in getting titles for pictures it is a question whether the Greek poet conveniently conceived characters which we recognize in our reincarnations, or whether he is the inspiration of our creations.

The opposition through which this new art is pushing itself, the traditions like the earth which lies above the bursting seed through which it has to force its way, is a great and beneficial discipline, developing strength and brushing off whatever is superfluous or weak. So much the better if progress is slow. For a last word I would like to quote Mr. Steichen in a recent "brave" and refreshing criticism: "The goal for which we are working is still far, far away, and it seems that each and every man needs contribute toward the element which is to reach it and which each and every worker believes eventually will, or at least should, be reached."

PLATINUM TONING RIGHT UP TO DATE.

Platinotype or carbon effects, on printing-out silver papers, are generally obtained by the process that Lionel Clark was the first to suggest—or, rather, by a modification of it.

Prior to his discovery numerous attempts had been made to tone silver prints with salts of platinum, but none of them were very successful.

Finally somebody discovered that if a solution of a platinous salt were added to a solution of gold chloride there was an immediate precipitate of platinum black.

When this fact was determined, it did not take long to find out that a gilded silver image (namely, a silver print toned in gold) would reduce platinum from its solution. Mr. Clark undoubtedly deduced his formula from a knowledge of these facts.

His original formula differs from that given by the various modern matt paper-makers, chiefly in the character and strength of the platinum bath. He used 15 grains of chloroplatinite of potassium and 10 drops of *nitric* acid to the pint of water, while our paper-makers direct us to dissolve 15 grains of the platinum salt and from $2\frac{1}{2}$ to 3 drams of *phosphoric* acid (50 per cent) in enough water to make two ounces of solution, and then to take 1 dram of that for each 20 ounces of toning bath.

For several years the separate toning baths reigned undisturbed as the only successful method of platinum toning, and many photographers to this day refuse to consider any other process—no matter what is claimed for it, nor proven for it. Between you and me, the average photographer is very "sot" in his ways, and new ideas, like a wedge, can only be inserted in his head with a mallet.

This is an age of progress, and in the course of time somebody learned that an acid solution of cupric chloride and the platinum salt, in water, would give platinum tones to silver prints without any preliminary gold toning.

The "Aristo" people got hold of this idea bright and early and the public was soon afforded a glimpse of their "Single Toner."

Solutions of platinum and copper may be mixed in all proportions without a trace of precipitate resulting, so that the discovery of this latter process was presumably accidental.

As far as I know, no analysis has been made of the precise chemical reactions that occur during the toning of a silver print in a mixture of platinum and copper, but it is probable that the visible silver image first reduces the cupric chloride (Cu Cl_2) to cuprous chloride (Cu Cl), a very energetic reducing agent, and the latter then reduces the platinum.

The visible image is no mean reducing agent itself (Ag_2Cl) since it reduces the copper, but it is too feeble to reduce the platinum except very slowly and from concentrated solutions.

It was some time before the rival pa-

per-makers learned what the "Single Toner" was, but when they did all of them began the production of imitations of it under one name and another, and now its use is widespread and its secret an open one.

The latest development in platinum toning comes from the laboratory of "The Tolidol People," and is a departure on an entirely new line, as it eliminates not only the gold toning but also the copper — the work of those metals being done by a coal-tar product of theirs that they have named phenone.

Phenol (C_6H_5OH) is carbolic acid — just what phenone is I can not say; but I am informed that it is derived from phenol and I have not the slightest reason to doubt the accuracy of my information — anyway, just whatever it is, it certainly does the trick and "Platino-Phenone" versus "Tonplatinol," as its powdered form is called, marks the third and not the least important step in platinum toning.

When toning first with gold and then with platinum, or with a single mixture of platinum and copper, there is a point beyond which no platinum is deposited on the image, but the phenone keeps right ahead and continues to deposit platinum until either the print is removed or the bath is exhausted.

Another thing that the phenone mixture does — and does it superbly — is to tone prints on gelatin papers of the Solio type, and, as far as I have ever been able to learn, it is the only medium now known that will tone gelatin papers to a pure black and white.

Nobody, unless he has seen gelatin prints toned in Platino-Phenone, has any idea of their great beauty, and nobody, unless he has tried it, can form an idea of its charming simplicity of manipulation. I. N. COGNARI.

NEW ORTHOCHROMATIC PLATES.

As will be seen from our advertising pages the M. A. Seed Dry Plate Company, after long experimenting and thorough testing both as to color sensitiveness and keeping qualities, have put on the market their new orthochromatic

plates. Realizing the great differences between indoor portraiture and outdoor landscape work they make the plates in two brands, each specially adapted for particular work. We tested these plates in the factory a few months ago and found them to be all the makers claim for them.

THE FIRST of the new season's catalogues to reach our desk is that issued by the Blair Camera Co., Rochester, N. Y., under the title of "Hawkeyes." It opens with a description of the various forms and styles of these popular cameras, of which the most interesting is the Weno, which is a marvel of compactness and ingenuity. The latest of this model is the Stereo Weno Hawkeye, which is emphatically the neatest thing of the kind we ever saw, being only 28 ounces in weight, and folding up into the remarkably small space of $1\frac{7}{8}$ by $4\frac{3}{8}$ by $10\frac{1}{4}$ inches; in fact, it will go into one's coat pocket. Such an instrument should make stereography popular. The catalogue can be had for the asking.

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Negative by E. B. Core,

New York.

A FAMILY GROUP.

THE PHOTO-BEACON.

EDITED BY F. DUNDAS TODD.

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REMOVAL NOTICE.

The office of THE PHOTO-BEACON is now located at room 409, Security building, Chicago.

PROPOSED AMATEUR CONVENTION.

From many directions I am in receipt of letters favoring the suggestion that the amateur photographers in this country should have an annual convention. All seem to think it would be both a pleasure and a profit to exchange ideas with others, and speaking as one who has attended over a score of such gatherings I can say that my own mental growth during the past few years has been greatly aided by them. The man who holds exactly the same opinion on any subject that he held even a few years ago is virtually a nonentity. He may pride himself on his consistency, but in all probability he really has but the ape-like faculty of imitation. But if his mind be developing he will find either stronger, more reasonable, more logical reasons for the views he ties to, or by the acquisition of more facts be compelled to modify them.

Life is pretty much worth what we get out of it day by day of mental pleasure. A new idea is therefore a tid-bit, something to be ardently welcomed, to be slowly and deliberately masticated, and digested with serenity. Our physical food comes from the outside, and so must our mental pabulum. We practically realize this by making social calls. We are seeking companionship, not to

sit and gaze at each other, but to exchange thoughts and get new ideas.

A chat with a neighbor is a meal, a visit to a convention is a banquet, with dishes so varied that even the most fastidious can lay in a supply so great that it may be months before he again feels hungry.

It seems to me that a good place to hold an inaugural meeting for an amateur photographers' convention would be at the Pan-American Exposition at Buffalo. It is within easy access of the great centers of the eastern half of the continent, it is a place of pilgrimage for millions this summer and multitudes of camera-lovers will be there. So why not call the first meeting at the Exposition in the first half of September?

All those willing to join in please send their names at once to me and I will look after the preliminary arrangements, even if it does keep me off the golf links and away from the glorious sunshine, the trees, the grass, the flowers and the birds, more than I care to miss. I enjoy living, but I will be only too glad to help others enjoy it as much as I do, because almost everybody helps me.

F. DUNDAS TODD.

HE who lets the world, or his own portion of it, choose his plan of life for him, has no need of any other faculty than the ape-like one of imitation. He who chooses his plan for himself, employs all his faculties.—*John Stuart Mill.*

**E. B. CORE, PHOTOGRAPHER OF
CHILDREN.**

The artistic temperament is as yet alien to the average professional photographer. Preoccupied with the business or scientific side of his work he rather sniffs at the artistic as so much

technical skill, which means an understanding of composition; he must know the laws of light and its infinite possibilities in chiaroscuro; he must have a feeling for a decorative disposition or spotting of masses of light and dark; his color sense must be alive, that he



Negative by E. B. Core,

New York.

cant. Few professions offer such opportunities for success to the right person as artistic photography. But such success means a rare combination of talents. First of all he must be an artist in feeling and knowledge, if not in

may convey true color values, and finally he must possess an exquisite appreciation of the beauty of tone, a quality but rarely possessed in the highest sense by artists and certainly essential to the artistic photographer.

That Mr. Core seems to embody these qualities is amply manifest in his work. But a comparatively recent acquisition to the profession in New York, he has met with marked success financially as well as artistically. New York, magnetic and seductive, draws unto

ing children. That he understands childhood and childlife is evidenced in his sympathetic interpretations, a rare gift is this art of portraying childlife in photographic portraiture. Could anything be more charming than the group of children looking over a picture-book



Negative by E. B. Core,

New York.

itself the ambitious and aspiring, and is generous in its expression of appreciation.

A photographer of mature years and varied experience, Mr. Core now devotes his time and skill to photograph-

— the naïve action of the little child in the foreground, the gentle movement of the arm and hand of the girl to the left, how it helps to bind the group into a whole. Then the disposition of the masses of light and dark, and above all

the richness of the tone — a masterly achievement; the composition, the lighting and tone are worthy of an artist who understands his profession. Again the little group of babies on the settee, a boy standing at their side, so delightfully composed and placed within the space. So too the girl and child standing at her side, possessing all the ease and unconsciousness of manner as found in the home.

Then the attractive placing of the simple head of a girl, so far removed from the conventional in everyday photography. In the portrait of a boy and girl the head of the girl is particularly fine, a pity that it is not alone; the lines and values are exquisite, and in characterization reminds one of those fine heads by Abbott Thayer, the artist.

Mr. Core's studio is a veritable toyshop, entrance into which means the departure of all consciousness of manner on the part of his little sitter. No evidence of the shop or the commonplace studio accessories find their way into his work. Had he made his negatives in the homes of his sitters their surroundings could hardly be more pictorial for his purpose.

J. H. VANDERPOEL.

PICTORIAL COMPETITION NO. 36.

A very interesting and photographically excellent lot of pictures were submitted in this competition. The judges made the following awards:

First prize — Gabriel Moulin, 780 South Broderick street, San Francisco, California.

Second prize — Louis D. Phillips, 2622 Gilbert avenue, Cincinnati, Ohio.

Third prize — E. K. Smith, Antigo, Wisconsin.

PARTICULARS OF PRIZE PICTURES.

First prize — Made on Cramer Medium Isochromatic plate, stop 32, exposure five minutes. Printed on Aristo Platino, single toned.

Second prize — Taken April, 1901, stop 22, exposure five minutes. Printed on Bradley Platinum paper.

Third prize — Made October 15,

1900, on a clear day, 11 A.M., on Seed's non-halation plate, stop f 22, exposure 14 seconds. Printed on Velox.

FUTURE COMPETITIONS.

Competition No. 38 — Domestic animals. Closes June 30.

Competition No. 39 — Genre pictures, or pictures that tell a story. Closes July 31.

Competition No. 40 — Branch of a tree with leaves. Closes August 31.

Competition No. 41 — "At Home" Portraiture, that is, portraits not made in a studio. Closes September 30.

Competition No. 42 — Snap-shot pictures. Closes October 31.

Competition No. 43 — Landscapes. Closes November 30.

Competition No. 44 — Flower pictures. Closes December 31.

RULES.

1. There is no restriction as to the number of pictures to be sent in. On the print there should be written the title and sender's name and address, but nothing else. Accompanying, a letter or postcard should be sent us, giving full particulars of date, light, plate, stop and exposure given; also the printing process.

2. Mark outside of package with number of competition. Ordinary letter rate must be paid where descriptive matter accompany prints.

3. Prints are not returnable.

PRIZES.

First — Books to the value of \$5.

Second — Books to the value of \$2.50.

Third — Books to the value of \$1.

Any books, on any subject, or if preferred, any article we can buy in Chicago.

POSTAL CAMERA CLUB.

The Postal Camera Club has an active membership of fifteen members and appears to be getting along famously. They wish about five new members. Applications should be sent to Henry Hall, Dongan Hills, New York.

MY EXPERIMENTS.**CHAPTER II.**

When Mr. Todd asked me to give him a few articles for *THE PHOTO-BEACON* on the subject of my experiments, he had an idea of such a series as would make his readers familiar with the various and weird chemical experiments that I had made while getting acquainted with photography.

I see that he has published the first instalment that I gave him, even though the experiments do not fully meet the views that I suspect him of holding, and I am therefore encouraged to continue along the lines that I have mapped out for myself. But, before going any farther, I will remark that before I have finished the series, I will describe some experiments that I made in preparing water-tone platinotype paper, a series of experiments in compounding various toning baths, and a lot of experiments with miscellaneous photographic processes.

Shortly after I discovered that the possession of a camera did not involve a complete knowledge of the art and science of photography, I got the near-sighted man who sold me the kodak to go out with me one afternoon and give a practical demonstration of its workings. He was very kind about it and took a half-day off from his work without complaining. Some people are very accommodating when it comes to accepting holidays, and he was one of them. He knew his business, and the things that he told me about handling the box were worth taking a half-day off to learn.

When we got home that evening he came up to the house and kindly took dinner with me. After dinner we adjourned to a darkened bathroom and, after explaining to me that merely having a lighted ruby lamp in the room did not in itself make the room safe for developing purposes, but that all other lights had to be extinguished, he turned off the gas jet and got busy.

This time we had some negatives. He had one or two over-exposures in the lot that jumped right out almost as

soon as he put them in the developer. These he removed at once to a tray of clear water and, turning to me, said, "Where is your bromide of potassium?" He alarmed me and I asked him if he always had to take bromide when he was developing. I was just a little bit nervous myself, but supposed it was due to excitement over the novel experience of seeing films developed.



Negative by E. B. Core,

New York.

He laughed and said that he never took bromide himself, but that when plates had been over-exposed it was necessary to put a few drops of it in the developer to prevent them from developing up all over and thus spoiling.

It seemed a funny thing to me to give the plates a nerve sedative of the same sort that would be given to a nervous person. I didn't have any bromide handy just then, but there was

and we put about a half an ounce of the tonic in the developer. It worked all right. The tonic contained quinine bisulphate, resorcin, cantharides, chloral hydrate, boric acid, alcohol, glycerin and water, and it made an excellent retarder for that particular mess of films. Plain bromide of potassium is cheaper, so I did not try the tonic after that first time, but I should not hesitate to use it if the occasion ever arose again.



Negative by E. B. Core,

New York.

a bottle of quinine hair tonic on the shelf, that, reasoning by analogy, should be nearly as serviceable as bromide if taken in large doses, for quinine, in large doses, is far more depressing than an equal quantity of bromide. He, the camera man, thought that I was having some fun with him, but I insisted on making what was my first chemical experiment as related to photography,

At various times since then I have used common table salt, granulated sugar, iodide of potassium, and, once, bromo seltzer, as retarders and had fair success with each. The bromo seltzer is to be particularly recommended, as, after it is dissolved and the effervescence ceases, it is a mixture of bromide of potassium, citrate and bicarbonate of sodium — a compound that is

better in some respects than just plain bromide.

After we had developed and fixed the films, and before they had a chance to get even surface dry, I wanted to begin printing them. The only paper that I had in the house was some ready sensitized albumen paper, marketed in those days by Anthony & Company, and I didn't see why we could not make prints on it by gaslight. My preceptor

board, "good-night" was exchanged between us, and my friend, the near-sighted man, left me with my head full of things that kept me driving nightmares until breakfast time.

All during the evening my wife had given evidence of being thoroughly pleased at my having taken up photography — more pleased with the fact than interested in the process — and it was not until long afterward that I



Negative by Gabriel Moulin,

FIRST PRIZE.

San Francisco, Cal.

did though, and I was much discomposed to learn that I must wait until morning to find out what sort of pictures the films would make.

During the time that the films were getting their post-fixing washing I was instructed in the art of making solar prints from negatives, and was shown how to mix the toning bath and how to dilute the fixing bath so as to adapt it for use with printing-out paper, and then the films were removed from the wash water, pinned up on a planed

board, "good-night" was exchanged between us, and my friend, the near-sighted man, left me with my head full of things that kept me driving nightmares until breakfast time.

Young wives — If your hubby tells you that he is going to buy a camera, don't make a fuss, it will keep him in the house evenings until he joins a camera club. When he does that, you just join it yourself and you can keep tab on him, provided you are anxious to know what he is doing.

RALPH MARTIN.

PORTRAIT POSING AND LIGHTING.*

BY J. H. VANDERPOEL,

Head of the Department of Figure Drawing and Painting in the Art Institute of Chicago.

CHAPTER VI.**POSING MALE FIGURE.**

Without doubt the photographer generally finds it a much easier proposition to satisfy the male sitter than the female.

very seriously when before the camera, and then is likely to be as fussy as the most capricious woman. But on the whole he is complacent and amenable to the operator's suggestions; he is more anxious to please his lady friend and members of his family than himself. As before remarked, the elimination of the element of beauty, the beauty of



FIG. 26.

This figure is awkward to a degree, the overcoat only adding to the great breadth of body, which is so strongly silhouetted against the background that all sense of depth in the figure is lost. The hands in the pockets is bad in every way.

The element of beauty not being a factor in the portrayal of a man, its elimination brings out more strongly the question of character. Outside of the ultra-fashionable male the average man is not given to posing. It is only when arranged in his regimentals, regalias or dress suit that he takes himself

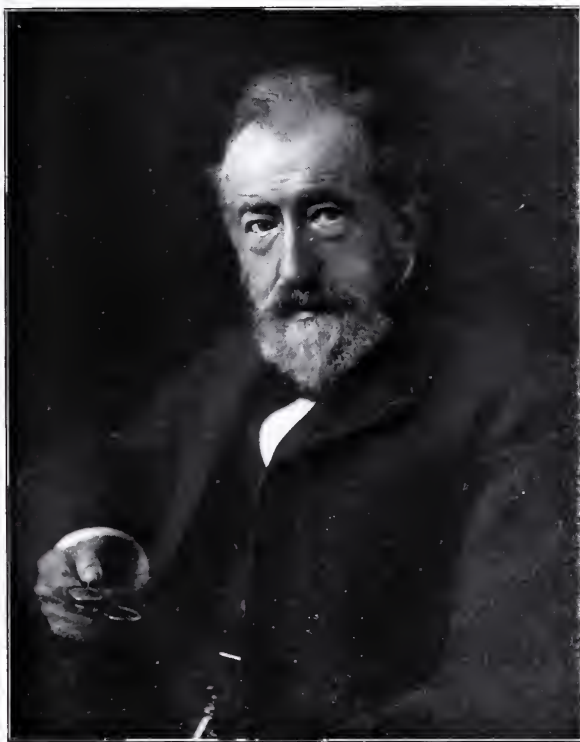
features, face and expression, the beauty of grace in the lines of the figure, dress and action which abound and are of infinite value in female portraiture, only emphasizes the predominant factor in portraying the male, and that is force and strength of character.

It is the man unadorned that we want. His figure should be so posed

*Copyright, 1901, by F. Dundas Todd.

and lighted and his character so understood and interpreted that it can be read like an open book. This difference of the nature of the sexes should be more largely and broadly understood by the photographer of today. If clothes do not make the man, neither do they make sex. If the study and analysis of what constitutes the beauti-

outwardly in his expression and action. Therefore force of character is to the man what beauty is to woman, and as posterity will judge of what manner of men we are today greatly through photography, it behooves the photographer to give us, for our own gratification as well as that of generations to come, a strong and forceful interpretation of



Negative by J. C. Strauss,

FIG. 27.

St. Louis.

A masterly piece of photography. The character of the man exists equally with a finely realized presence. The filling of the space with the light and dark spots, the masses of light and shade, and disposition of the lines in the arms, coat, shoulders and hand, make a good composition. It models strongly without projecting too much.

ful in woman in its various forms and expressions is sufficient to occupy one's lifetime the same might with equal force be said about the analysis of character in man. The man's varied occupations in all their diversity affect his character and leave its stamp upon his countenance. His battles won and lost in the social and business world leave their impress and affect his character

the character of his male sitters. One can not but recall with great pleasure many a daguerreotype in contrast to much of the average product of today.

All men cannot be made to look forceful. That is not the question; but it is possible to portray forcefully in the man what he is. To do this he must be understood, and that requires study and insight. How to pose him, how to

light him that the operator's insight may find realization. "Photographer to men only," reads the sign of a New York photographer. In such a large community as New York city such a venture may be successful, as it has proven to be; but such success can only come to him who understands the requirements of the undertaking. He must be a man among men. If it is deemed necessary to relieve the female mind from embarrassment and self-consciousness upon her entrance to a gallery, the photographer's task is even greater in the case of the man; he is apt to feel silly and flat, and at best had to be persuaded to make his appearance. He should be taken in hand and conversed with as man to man. Too few photographers have the capacity of dropping their fuss-and-feather manner used in posing the female sitter, when posing a man; this is apt to irritate to a degree and if not possessed with a desire to knock the operator over, he is mildly awed, as is evidenced in many a photograph.

When in civilian dress a three-quarter length is more suitable, both in sitting and standing pose, terminating just below the knees. When the full-length figure is desired no matter what the view, the legs had better be kept together in appearance; no matter how the legs may be placed in the pose, either turn the figure or bring the camera about so as to avoid the gap between them. If unavoidable, let the background be dark enough to absorb it. The dress suit, the military dress with its cape and various regalias lend themselves through their varied lines more readily to a full length of any kind. The dignity of carriage is such a factor in people so dressed that the entire figure becomes almost necessary in its interpretation. Military and theatrical people besides are good posers both on and off duty and are apt to need but little suggestion from the photographer beyond being placed in the proper light. In the desire to give snap to the pose of the average sitter in a standing position, the operator should be careful not to run in the severity, suggestive of the



FIG. 28.

The general lines in this are not bad, the arm and hand holding cap are good and make a good line in supporting the figure; the line of the shoulders is too round to be in keeping with a military bearing; the head, too, is badly lighted. A little more turn to both body and head would have been better.

military attitude: an easier and looser bearing, without being in the least weak or slouchy, should be sought for. The greater error lies rather the other way, however.

There is not enough thought given to difference in age in giving a pose, as well as difference in temperament. A thinking man should not be made to look as if about to lead a regiment to battle, neither should the man who has the executive written all over his being be given the appearance of a recluse. A greater latitude of action, free from swagger, is permissible in the younger man; in the man of maturer years the attitude and gesture should be more simple and dignified, as becomes his greater decisiveness of character, while dignified repose is most in keeping with old age. Alertness in the turn of the head, with frank, well-opened eyes, will give animation of expression in a portrait of a young man; in middle age the

turn of the head does not come so readily though the eyes may be as quick to go from corner to corner as in youth, while in old age the eyes and face are both slow to turn unless suddenly aroused. Youth, too, carries the chin high, old age low; and in mature life a gentle forward tip aids in giving thoughtfulness both to action and expression.

Neither the excessively stout, short or tall person should ever be given a standing pose. In case of great stoutness let the sitter lean forward sufficiently and its appearance will be greatly minimized; also be sure to use a dark enough background so as to lose the silhouette of the figure here and there against it; the dark clothes of a heavy figure coming against a light background only magnify the weight you wish to diminish. This idea of using the proper background to bring out least any peculiarity in the figure should receive the greatest consideration, as



FIG. 29.

Very bad posing. First, in the disposition of the weight of the body upon the legs and cane, then in bending of the arms so nearly alike; while the position and action of the hands makes two white spots similar in shape.

an ill chosen background may destroy your best efforts in other directions. For a short person use a smaller and rather lower chair, and for a tall one a higher chair than common, an armchair is most useful in this case as it permits of a pose that will break the length of body and arms. Never use a spreading armchair for a heavy man as it repeats breadth of form — the least incongruity in these respects only lends emphasis to the very characteristic you wish least to portray.

Much may be done in male portraiture by suggesting interrupted occupation. In female portraiture the hands may be frequently and gracefully used in some action relating to the dress; but in the male this is impossible. The old time habits of placing one hand between the buttons of the coat over his stomach and the other resting upon a table or pedestal, an action suggestive of the stump-speaker, has disappeared. But much might be done to give greater variety of purpose in the posing. A portrait need none the less be a likeness in the highest sense because it suggests some occupation for head and hands.

The senseless hauling a man before the camera as if he were on parade is not conducive to the higher order of likeness or portraiture and is exceedingly monotonous. It hides all characteristic actions which are as much a part of the man as his eyes and nose.

The front view in any position may as well be discarded, it is rarely apt to be successful, that is, when the figure is used erect without any action; by leaning the body to one side in a sitting pose and the arm raised with head upon the hand, you get a variety of line that may break the perfect symmetry of your figure; but even then a three-quarter view, or approaching it, will do better. A profile of the figure is sometimes characteristic, but on the whole the three-quarter view is the happiest.

THE Youth's Companion, Boston, Massachusetts, announces an amateur photographic competition, closing October 31, 1901. Full particulars on application.

PHOTOGRAPHIC PRINTING PROCESSES.*

BY LOUIS H. HOYT.

CHAPTER VI.

SQUEEGEEING PRINTS.

The process of finishing a print by the method known as squeegeeing, seems to cause many persons a great amount of trouble, judging from the inquiries we receive as to our way of doing it. As with all photographic processes, some preparation is necessary in order that it be easily done and the result be certain. The ferrotype plates must have a perfectly smooth surface and before use must be washed perfectly clean with hot water, using a cloth or sponge that contains no grit. After the plates have drained, rub them with a piece of soft cloth which has been saturated with a solution of paraffin and benzine or gasoline. This solution should not contain too much paraffin, as when polishing, it may be difficult to remove it. A piece of the wax as large as a navy bean will be enough in an ounce of gasoline. Rub this on the plate and when the oil has evaporated, polish with a soft cloth, rubbing very lightly so that the paraffin is not removed entirely. Prepared in this manner there is little danger of a print sticking, but when using gelatin paper I would advise placing the print for a few minutes in a weak solution of chrome alum and water to toughen the film thoroughly. Common alum will do as well if the chrome is not at hand. After hardening, the print should be rinsed in clear water. Place the wet print face down on the plate and roll into perfect contact. Prints should be dried slowly, preferably in a draught. Dried by heat the edges break from the plate first and usually curl up, leaving the print covered with circular cracks. A very good way to finish an unmounted print is to back it with cloth or paper. Squeegee the print in the usual manner. Wet the paper or cloth to be used for backing and lay it on glass the same as you would prints when mounting. Paste the top piece and lay it on the wet squeegeed

print and roll down. They will dry together.

PASTE.

Another constant demand is for a good paste which will keep. Dissolve one-half pound of lump starch in twenty-five ounces of cold water. Dissolve one ounce of gelatin or white glue in eight ounces of boiling water. Pour the gelatin solution into the starch. Add one ounce glycerin; one ounce of acetic acid (No. 8) and ten or twelve drops of oil of cinnamon. Boil until the mixture thickens, then strain. This paste keeps indefinitely, if covered when not in use, and never lets go.

COLLODION MATT.

The collodion matt papers which are generally used by the portrait photographer seem to be especially difficult for the amateur to handle, but it should not be so. The double toning process is very simple, but absolute cleanliness and close observation are essential to success.

Before printing, the negative should be well rubbed with a tuft of cotton to remove any foreign substance from the surface. The negative should have a coat of hard varnish and care should be taken not to touch either the face of the negative or paper with the fingers. A little oily matter from the fingers, on the face of the negative, will be transferred to the paper when put in contact in the frame. Finger marks will invariably cause red spots. The back of the paper being printed should not be touched with fingers that are sweaty, as it will show on the face every time. Many printers have never noticed this, but it is the cause of many blotches which they can not account for. There is nothing in the film of a good paper that will spot, and when they do appear you can lay the blame to improper manipulation.

For simple gold tones the paper should be printed just the same as the ordinary glossy paper. Print to the same depth, and tone and fix in the same manner. For black or dark tones, with double toning, the printing must be car-

* Copyright, 1901, by F. Dundas Todd.

ried very deep. The quality of negative and nature of the subject has much to do with the depth of printing. As a general rule, printing must be carried deep enough, so that the high lights or whites are tinted over. The detail in the shadows will be nearly, and in some cases entirely, lost. Prints from contrasty negatives generally bronze more or less in the deeper shadow, but correct toning removes it entirely.

The preliminary washing of this pa-

danger of damaging the surface, it is a very good plan to lay a large sheet of glass in the bottom of the tray, and as each print is put in the water it is wetted until it shows the tendency to curl and is then pressed against the glass. When all are in, the glass may be removed and set on edge for the prints to drain. Draining prints in this manner is about the quickest and most thorough manner of eliminating the surplus chemicals that one can employ.



Negative by Lewis D. Phillips,

SECOND PRIZE.

Cincinnati, Ohio.

per must be very thorough. The washing should be done by handling the prints, one at a time, in a tray of still water. Running water will not answer. It is possible to get along without doing so, but as a general rule the prints should be flattened in the first wash water. It requires no more effort to press the prints against the bottom of the tray and hold them for a moment until perfectly flat, than it does to throw them in and stir them about. To flatten prints with the least possible

One or two ounces of a saturated solution of carbonate of soda added to each gallon of the first wash water is very effective in removing foreign matter from the face of the print and is a partial preventive of red spots. While the use of soda is not absolutely necessary, I would advise its use at all times. It should always be used in the first wash water.

From six to ten changes of water are necessary to put the print in the best condition for the toning bath. After

the first wash it is unnecessary to pack them; they should be continually handled over. After commencing the washing do not touch a wet print with fingers that are dry; wet them first, or a spot is almost certain to appear.

A little common table salt added to about the fourth wash water will give the print a very good color for toning and clear it nicely. As with soda its use is not necessary, but many good printers use it with the very best of results. The last two changes, at least, should be just plain water.

Washing the prints thoroughly does take time and labor. If you slight it, giving want of sufficient time as an excuse, you have only yourself to blame. If you cannot afford the time to do it right, my advice is not to commence at all. You will make a failure of it.

It is astonishing how very differently printers handle the gold and platinum baths and obtain the same results. One will tone with a bath weak in gold, while the next man will be using one twice as strong. Here we meet a printer who says he gets the best results with a bath very slightly alkaline, and there the next uses a bath that actually feels as though it contained soap, it is so strongly charged with soda. The water being used is not the cause of this either, because in any city, where all are using the same, these varying conditions of the gold bath obtain.

In my opinion a medium strong bath, say about one grain of gold to forty or fifty ounces of water and containing enough alkali to turn litmus in about two or three minutes, is the best. I like to have a print tone far enough in the gold in about eight minutes, yet I know printers who do splendid work, who put them through the gold in about one-third of that time.

Borax is pretty generally accepted as being the most practical alkali for this purpose, and is certainly good. I am acquainted with one demonstrator who uses chloride of lime and his work is certainly as good as can be produced, but this lime must be handled very cautiously. He prepares his alkali by shaking up a handful of lime in a half

pint of water, and after allowing to settle, adds three parts of water to one of the lime water. He then uses enough (and it is very little) to turn red litmus blue.

Considerable has been said of late concerning the use of common salt in the gold bath. It is claimed that the prints tone much clearer. I have tried it in all quantities, with all makes of paper, and positively cannot see that it improves matters any. I have talked the matter over with many printers and find that they are of the same opinion.

The same rules hold with these papers as with the glossy, concerning too much or too little alkali. In a previous article this matter was explained and the reader can refer to it for details.

The color of the tone as the print comes from the gold has all to do with the tone which will be obtained in the platinum. Carried in the gold to a point where the whites have cleared and the shadows have changed only slightly darker, the print after the platinum toning will be of a brownish-black color.

If the gold toning is carried far enough to give the shadows a warm seal brown, with the half-tones rather on the purple order, the platinum will so change it that it will be practically black. Over-toning in the gold so that the image is quite blue, seldom gives pleasing results, as the print generally has a rather washed-out appearance.

Averaging up the work of the general run of printers, the best results seem to be obtained by toning in the gold until the whites clear and the shadows have toned far enough so that the yellow appearance cannot be detected in the shadows when viewed by transmitted light. This gives a dark tone, slightly on the brownish-black order. It is very bright and pleasing.

Absolutely black tones are difficult to obtain. Printing from some negatives, it comes easily, while with others it seems to be impossible.

It is advisable to run one or two prints through the gold and then the platinum, and the result will show how far to carry the rest of the batch in the final toning.

I find it a very difficult matter to describe the toning process very accurately, but I don't remember ever seeing an article on the subject by anyone else that really made the subject perfectly plain. Experience has got to do it. I would not advise anyone to handle the double toning until thoroughly familiar with the glossy papers and plain gold toning. Gold toning learned, the rest is easy.

BEGINNERS' TROUBLES.

V.—PHOTO ALBUMS.

In the March issue of THE PHOTO-BEACON I advised that prints intended for one's own collection be mounted in

to be done, and a little larger would be better. A 4 by 5 negative may be printed in a 5 by 7 frame, but it will give a rather narrow border around the print. A $6\frac{1}{2}$ by $8\frac{1}{2}$ frame would be better. Whatever size of frame is used it must of course be fitted with a plain glass, also a cardboard mat in the center of which is cut an opening large enough to loosely receive the negative. Next cut a mat of black paper as large as the printing-frame and with an opening a little smaller than the negative. A quarter of an inch all around the plate is usually enough to hide all the frills and blotches at its edges. For a 4 by 5 plate this would make the opening $3\frac{1}{2}$ by $4\frac{1}{2}$. But if your negatives are



Negative by Percy L. Trussell,

Berwyn, Ill.

THE PHOTOGRAPHER.

book form. Instructions for making albums according to the plan suggested have so often been published that I thought a few words upon the subject were sufficient. But the letters that I have received asking for details have reminded me that these papers are for beginners, not for those who have been studying photographic literature for five or ten years.

To begin with, the printing-frame must be larger than the negatives to be printed from, as large at least as the sheet of paper on which the printing is

matted, as recommended in the directions for printing Vinco paper, the opening may be a quarter of an inch larger each way. In that case all that is necessary is to shut out the light from between the negative and the cardboard mat.

Instead of putting the mat of black paper on the back of the negative, as recommended by the manufacturers of Vinco, I would advise that it be placed on the face. That will give a sharper line and help to protect the negative from scratches. It is true that if placed

on the face it can never be removed; but you will never want to remove it.

Along the edge of the best of negatives there are always frills, scratches, and blotches, that necessitate trimming off at least an eighth of an inch from the edge of each print, very often much more can be profitably cut away. If a strip of black paper, just as wide as the strip that would be cut from the print, is placed on the negative, it will save the trimming and nothing will be lost from the picture.

I prefer to cut the paper the exact size required before printing. There is really no necessity of using larger paper and trimming it after toning, as some writers advise. An inch of margin all around the picture, with an extra half inch at the left (or at the top if it is an upright) will be sufficient for any size not larger than $6\frac{1}{2}$ by $8\frac{1}{2}$. If your negatives are smaller than 4 by 5 it will be well to put two or more on a page. They may be printed one at a time, but a better way is to cut the required number of openings in the mat and print them all at once. If you follow that plan the openings in the cardboard mat should be small enough so that the negatives will fit quite snugly. Otherwise there is danger of the negatives being moved when you open the printing-frame to examine the progress of the printing. Whenever possible negatives of equal density should be selected for each page of the album; but if one does print faster than the others, it may be masked by simply placing a mask of black paper over it, or between it and the sensitive paper, until the others are finished. Don't crowd the prints too closely together. Even if they are "brownies" the page will look much neater when there is an inch of white paper between each print, than when there is only half that much.

If the negatives are matted, the paper mask may be placed between the plain glass and the cardboard mat; otherwise it should come between the negative and the sensitive paper.

Several have asked my opinion as to the most suitable paper to use for album leaves. Any paper is suitable; but that

coated on heavy stock usually gives better satisfaction than the thin papers, as the latter often have a decided tendency to curl. An album of blue-prints made from negatives suitable for that process will never fail to attract admiration from all who see it. This simple, cheap, and consequently much despised process has great pictorial possibilities; and those who use it ought to strive to make their blue-prints in every way *pictures*. Plain silvered paper is also excellent for this purpose. Formulas for sensitizing and directions for working this paper can be found in any photographic encyclopedia. It is a rather troublesome process, however; and it requires more attention than most amateurs have the time to give it. But for cheapness, ease of manipulation, and beauty of results, I have seen nothing to equal Vinco.

The most simple manner of binding the leaves together is to punch three or four holes in the wide margin and lace them between bristol-board, stencil-board, or leatherette covers. Or if one's taste is more fastidious, and his pocketbook will permit, the covers may be of leather, and the binding done at a regular bookbindery.

One may have a number of albums made after this plan; one for each class of pictures, for each season's work, or for each photographic tour. And if the leaves are bound by lacing it will permit the addition or rearrangement of leaves at any time.

J. EDGAR ROSS.

May 6, 1901.

To the PHOTO-BEACON:

The picture by A. H. Waite in your May number is, in my judgment, one of the best you have given us.

It, with the letter of Mr. Waite, strikes the right "tone"—the fuzziness question.

Look into that picture and feel the distance and atmosphere. How it *makes* one long to get away from hard pavements into the width of God's great woods.

Sincerely yours,

W. G. CORTHELL.

LETTERS TO THE EDITOR.

Mr. F. Dundas Todd, Editor THE PHOTO-BEACON:

DEAR SIR,—The April number of THE PHOTO-BEACON at hand and enjoyed as usual, or rather more so, because of the very interesting and instructing controversy between the Fuzzies and Anti-fuzzies. I say in-

amateurs away from home, and what few have sojourned here have been "button pressers," whose mental impressions of photography, especially pictorial photography, were so fearfully underexposed that I could get nothing out of them. In the pursuit of my profession I have tried to maintain a calm judicial mental poise, unfettered by school or sect, and while I am only



Negative by G. W. Frederick, M. D.,

Ridgeville, Ind.

structing, and to me it is, for the reason that I depend exclusively for my instruction in art and photography upon what I can read and my own experience. I am the only amateur photographer in the village in which I live.

Since taking up photography I have for business reasons remained almost exclusively at home and have been deprived thereby of intercourse with

human and not entirely free from prejudices, I am less so than the majority of people whom I meet, because I have *made an effort to avoid it* in the interest of my profession. A pig-headed doctor, Mr. Todd, is a dangerous proposition, and I advise you to treat him as you would the pistol that is not loaded (?). So you see by mental training and environment, absence of personal influence

and in a degree, of prejudice, I am in a position to reach a rational conclusion, always providing I have the capacity to make the most of my advantages, and ability to grasp the many phases of the subject in controversy. This, unfortunately, I fear I do not possess, for I am still very much confused and cannot throw very much light upon the subject in controversy.

Six years ago I began making photographs and tried to secure all the definition that my lens was capable of. But

Robinson's "Pictorial Photography" opened up a new era in my career and Emerson's "Naturalistic Photography" let in several streaks of light on the opacity that enveloped me. I do not agree with everything he says, but every amateur should read both of the above-named books if he never reads anything else. Meanwhile I have taken *THE PHOTO-BEACON*, *Photo American*, *American Amateur Photographer* and *Photographic Times*, all the *Annals* and the *Camera* for the last year. The



Negative by G. W. Frederick, M. D.,

No. 1.

Ridgeville, Ind.

while others praised my efforts they did not satisfy me. My composition was all right, but there was something amiss. Having seen some reproductions of Horsley Hinton's work, I tried diffusion of focus and secured some effects that really pleased me and a *whole lot that did not*. Then thinking that possibly untrue color values might be the cause of my failure in a degree, I tried isochromatics and color screen, and while I secured more harmonious tones I lost atmosphere. Meanwhile I was reading everything I could get on photography — pictorial and otherwise.

first three and the last are undoubtedly the best journals in America at least and I can not get along without them.

But this is getting to be a long letter, and since long letters are food for the waste basket I must say what I have been preparing to say. Some want their porterhouse well done and others *very rare* and both seem to be equally well pleased with the *effect*. Artistic photography so far as in or out of focus is concerned is like the steak — it depends upon the taste of the individual. I contend that composition, light and shade, gradation, etc., are very impor-

tant things, likewise human interest, but all these are not always required to make an artistic picture. An artistic photograph, to my mind, must be true to nature. I do not mean in minuteness of detail, but in effect. It must suggest to the observer's mind some tangible or intangible impression. I mean that it should recall some well-defined effect that the mind can analyze, or else a vague, indistinct emotion, pleasurable or otherwise, but not sufficiently dis-

shades and its good composition. The attitude of the figure does not suggest to me anything that is natural. It has no business there, and spoils for me the whole effect. This attitude suggests that he is pulling up the corn stubs, and inasmuch as my whole life has been familiar with rural scenes and habits I know that that is something that is not done. The fact that it is fuzzy hid this defect at first, and when I saw what seemed to me a false note it spoiled



Negative by G. W. Frederick, M. D.,

No. 2.

Ridgeville, Ind.

tinct to be entirely grasped, yet sufficient to be conscious of it. And if there are any incongruities in the composition, the moment they are observed the effect is dispelled and never after will that same sensation be produced. Now, for instance, in Mr. Wilde's "Autumn Morning," I confess that upon first observing it I was wonderfully charmed with it. It delighted me and it produced a series of emotions that I have now forgotten, but it is no longer capable of doing anything for me, but to admire its lights and

its effect. It no longer produces those responsive mental vibrations that were its greatest charm. Do not misunderstand me; I do not condemn it. Others may not see this false note or be indifferent to it. I am trying in a hazy sort of a way to explain why it is art to some, smudge to others.

I enclose a little print marked No. 1. It was a June afternoon, the sky was clouded, but the sun was not entirely obscured. The sky was completely veiled, with occasional white, cloudy

masses standing out in slight relief. A warm, gentle breeze was stirring. A few evenings ago my brother was looking over some prints, and among them was a similar print. The delight that it provoked in him could not be better described than to say it was ecstatic. The print produced the same effect that the original did upon me. He could hear the lazy droning of the bees and could feel that languid, dreamy sensation of peaceful repose that makes it a source of continual delight. To him it is a work of art, and there is not a single false note to distract his impressions. No. 2 was taken from a different point of view and really is a better composition than No. 1, but underexposed and overdeveloped. It utterly fails to inspire me with the impressions that the actual scene did. But if printed through a thin film of celluloid and *sunned* down, it is wonderfully improved but not equal to No. 1. And I *would not hesitate* to make it ever so fuzzy if by so doing I could obviate any distracting fault and enhance its effect. Therefore, I believe that diffusion of focus is legitimate and necessary when by so doing you cover up or disguise some discordant element, but when such do not exist it is not advantageous but harmful.

I do not admire in pictorial work extreme definition in all planes, but am inclined to softness of outline such as can be secured by a single lens worked with an aperture large enough to soften definition without destroying structure. In my humble opinion there is no lens equal to a single lens of sufficient focal length, say one and one-half times or twice the base line of the plate, to render a subject as the eye sees it when used with a large stop. But there must be no distracting elements, and that means so much that at times I am tempted to give it up; but I keep thinking mighty hard, and while I may be following a will-o'-the-wisp, I still hope to be able to make, with a certain degree of certainty, pictures that will excite in myself and others tangible or intangible impressions.

In conclusion, you must pardon me for this intrusion on your valuable time,

but you will forgive me when you know that I have no one to talk to on matters photographic and that I have read uncomplainingly all you have ever written that I could get a hold of. However, you are always entertaining and I hope you will live many years to inflict your ideas on the photographic public for its own good.

Yours truly,
G. W. FREDRICK, M.D.,
Ridgeville, Indiana.

NEW METHODS OF TONING AND INTENSIFYING BROMIDE PRINTS.

One often gets bromide prints in which, from one cause or another, the image is of an unpleasant greenish tone, or is faint and lacking in vigor. Various chemical methods of improving such prints and of obtaining different and pleasanter tones than can be got by simple development have been receiving my attention lately.

The processes to which I shall refer in this article are two in number, employing in one case a solution containing gold, and in the other one containing platinum. They are not simple toning baths, however, as we shall see; for satisfactory toning, as the word is usually understood, is not possible either with silver or with gold in the case of a silver image obtained by the development of bromide paper. The silver does not allow of the substitution of those metals for it, or, if it does, it is only to an inappreciable extent.

The first process is a slight modification of one which I studied some years ago, and an account of which was published in 1893. It is one that would seem to be peculiarly suitable in the case of weak flat prints, intensifying them and giving them, at the same time, a very pleasant violet-black tone. The print, after developing, fixing, and washing in the usual way, is immersed in the following bath:

Mercuric chloride.....	10 grains
Ammonium chloride.....	25 grains
Hydrochloric acid (pure). .	5 minims
Water.....	1 ounce

This solution will keep indefinitely, and may be used over and over again. In this bath the image, as might be ex-

pected, soon bleaches; but it still remains plainly visible. After remaining in the bath for from three to five minutes, the print is taken out and well washed in running water for five or ten minutes. It is next immersed in the following solution:

Ammonium sulphocyanide.....	10 grains
Water.....	1 ounce
Gold chloride	½ grain

In this liquid the print will gradually increase in vigor until it finally assumes a fine black tone with a slight violet tint, the contrast and gradation being greatly improved.

The gold and sulphocyanide bath keeps in good order for several days. There can be no doubt that the ammonium sulphocyanide reacting upon the mercurous chloride present in the bleached image gives mercurous sulphocyanide, also, perhaps, other dark-colored mercurous compounds, which compounds may act by reducing some of the gold salt and precipitating metallic gold on the image. The image

in the finished print contains silver chloride also. This darkens slightly as the print is exposed to the action of light, but not sufficiently to cause any inconvenience. It can, of course, be entirely got rid of by immersing the print in a hypo bath, but this will be found to weaken it too much.

The plan just described is only applicable to bromide prints that are decidedly weak, as it results in a considerable increase in density. In other cases the fine tones resulting from the employment of platinum can be obtained by developing the prints in a solution weak enough to give a less vigorous picture.

The print is first treated with the bleaching solution of mercuric chloride, the formula for which I have given above. After it has become whitened throughout, it is placed in a developer similar to that employed in the case of negatives, but more dilute (at least an equal bulk of water should be added to the strong developer employed for negative work). My own preference



Negative by E. L. Smith,

THIRD PRIZE.

Antigo, Wis.

is for a developer containing metol and hydroquinone, which gives prints with a fine black tone without further treatment of any kind. In developing in this bath the silver chloride is reduced to metallic silver and the mercurous chloride, at least to a great extent, to metallic mercury. The vigor will be found to be greatly increased, and the image which finally results has a black color without the slightest tendency to green, the whites remaining clear. Such an image is perhaps permanent enough, but its permanence may be increased, and it may have imparted to it the fine black of a platinum print by employing the following solution:

Potassium chloroplatinite.	½ grain
Oxalic acid	5 grains
Water	1 ounce

This solution has a rapid action, and toning is soon complete. The reaction in this case is largely brought about by the metallic mercury, which, to a considerable extent, is replaced in the print by platinum.

In 1895, in the *Photographische Correspondenz*, I published a lengthy article in which the photo-chemistry of the salts of mercury and the photographic processes based upon their employment were reviewed. In this paper, among other things, attention was called to the great facility with which images of metallic mercury, by itself, could have the metal replaced by platinum. The same thing ought to hold good in cases in which silver and mercury both go to form the image, as in the present instance. While metallic silver reduced by the developer can not have platinum substituted for it directly, since it is unable to decompose the salts of that metal, still, by adopting the plan described above, that is, by introducing into the image some metal which has that power of decomposing a platinum salt, it is possible to obtain prints in which the image is made up almost exclusively of silver and platinum. By continuing the action long enough, prints as vigorous and permanent as could be wished can be obtained.—*Photography*.

PROF. R. NAMIAS.

VOIGTLANDER AND I.*

BEING THE REMINISCENCES OF JAMES F. RYDER.

CHAPTER VI.

THE BITE.

"With trimmings!" answered Mrs. Cummings.

"How will you have yours, Miss Ruggles — with sweetening?"

"No, just plain, Miss Jenks. I like it so best — it rests a body so."

At this juncture a side door to the dining-room opens a few inches and the voice of Henry is heard: "Ma! save me some of the custard!"

"Why, Henry Jenks! I'm ashamed of you. Where's your manners? Go, like a good boy, and find the dogerette man, and have him come and take tea with us, 'stid of waiting for the regular supper. He's good company, and I'm sure the ladies would like him." Continuing she added: "Did you see the picture he took of the Chambers girl? Her freckles didn't show hardly a bit and he made her look real pretty, I do declare."

"Mr. J., pass the cold meat to Miss Higgins, and pass the biscuits too. I don't know as they'll be fit to eat, I didn't have very good luck with them."

"Why, Miss Jenks, what makes you say so," exclaimed Mrs. Ruggles, "I think them just delicious, they're so light and tender; I wish I could make such good ones; with your nice butter and honey they just melt in a body's mouth. I must get your recipe for making them."

The pride which animates the heart of a noted good cook at praise of her baking shone from the happy face of Mrs. Jenks, as she said, "Certainly, Miss Ruggles, you'll be very welcome."

"I hear," said Mrs. Ruggles to Mr. Jenks, "that Thomas's dog has been killing some of your sheep?"

"Yes," said Mr. Jenks, "I seen Thomas an hour ago. I just went to work and told him I'd kill that dog soon as I laid eyes on him. He had the impudence to say I'd get in trouble if I teched that dog. Well, I took and told him I'd kill his dog and give him a

lickin' to boot, and he didn't dast to answer back."

The side door opens again a little way and Henry calls out, "Ma, don't forget the pie; save some for me, ma!"

Now Mrs. Jenks cuts a fine, large cake, and together with another plate

take to Melissa just a little taste of this cake."

"Certainly, with pleasure, Miss Ruggles. Let me fill up your cup, just to warm it up a little; I'm so glad you like my cake."

"Why, Henry Jenks, where's your



Negative by Clifton B. Gates,

Jamestown, N. Y.

STAIRCASE OF CAPITOL, ALBANY, N. Y.

of sliced cake they are passed to all; dishes of preserves are also passed and evidently enjoyed by all.

Mrs. Ruggles' enthusiasm is expressed with vigor. "Miss Jenks, you are a born cook. This is very pretty eating. I never tasted such vittles before. If you wouldn't mind I'd like to

manners? I'm surprised," said Mrs. Jenks, as Henry burst in the side door.

"Well," said Henry, "I knowed you must be through by this time; I'm hungry as a dog. Couldn't wait another minute!"

The ladies here withdrew, leaving the field clear to Henry.

Mrs. Jenks now discovered seated in a list-bottom rocker in a bedroom just off the dining-room, Mrs. Pelton, a very quiet neighbor and member of the church, in whose interest the "bee" was given.

"Why, sakes alive! Miss Pelton. You sitting here alone! You ain't been to the table nor had a mouthful to eat. What's the matter?"

"Well," said Mrs. Pelton, "its all my own fault. Fact is, I came away and forgot my teeth. I had them done up in a clean white rag, and 'stid of putting them in my pocket came off and left them in the stand drawer. Just like me. I'll forget my head next."

At "early candle light" began to arrive young men and maidens in dancing trim — "biled shirts" and low pumps, newly coated with white of egg to make them sleek and shiny, for the young men; white dresses with a blue or pink ribbon with ends fluttering around the waist, a flower in the hair for the girls, anticipated pleasure beaming from their faces.

They came from the farms from miles around, in buckboards and buggies, till the wagon shed was filled. The parlor and sitting-room below contained the "beauty and chivalry" of the village, and around about. Rosy cheeks and bright eyes which were dancing in anticipation, witching glances, happy smiles, witty flashes and repartee, charming coquetry and sweet blandishments; girls looking good enough to eat, and young men looking hungry. When from the dancing-hall came a sound of well-rosined bows drawn across sensitive and resounding strings of fiddles harmonizing themselves to unison of tone for the revel soon to begin, thrilled and vibrated every nerve and muscle like the touch of a "funny-bone" shock, putting into the dancing muscles the witchery and delight which tingles from toe to finger end, and makes difficult to keep the feet still, or upon the floor.

A rush and scramble to that hall of pleasure discovered upon the dais platform Nate Adams, first fiddle; Joe Moon, second fiddle; Leb Wright, cello and master of ceremonies.

A march was struck up and the couples answered to it by stepping off promptly and in good order. As the music ceased and the couples formed to places, Leb Wright "rose to the occasion," and said:

"Now, young fellows and girls, there's going to be a dance. It's going to be right here, in this room; we fellows here are going to give you the music. You mustn't kick too high, or laugh too loud, because its for the benefit of the church. We'll start with a cotillion. Now, away you go! All hands around."

And away they *did* go. Not boisterous, but with a spring and activity of ardor pleasant to see. Merry hearts and willing feet responded to the music, and the music led them through delightful turns, swings, and balances, as prescribed by the genial suggestions of director Wright.

Occasionally in the more enthusiastic passages of sudden whirls of "swinging partners," the "swish" of female skirts and the "stand out" of the young men's coattails was a breezy accompaniment to music strains and merry laughter.

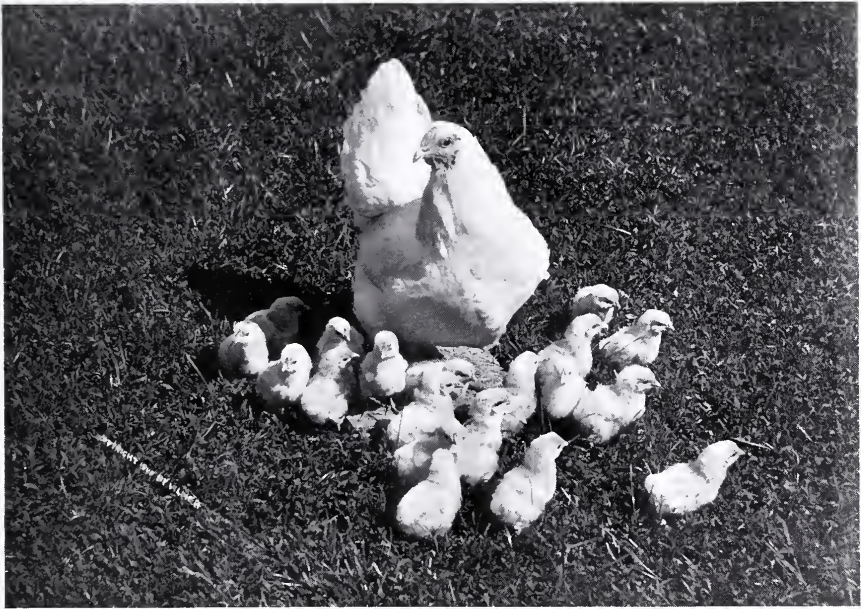
Miss Chambers was there! She was simply and modestly charming, without seeming to know it, and without a seeming thought of any one suspecting it—even herself. She was clearly a superior girl, and easily the belle of the party. Her manner was sweet and unobtrusive; even the girls liked to put an arm around her waist—yes, a girl on each side of her. She was a graceful dancer and much in demand. The minister thought there was "witchery" in her eyes, was Mrs. Ruggles' declaration. The minister was right—but it was a sweet and innocent witchery. Her smile was the sunshine of a June morning, her hair 18-K gold, burnished in the lights and sobered gold in shadows. Gracious! But I wanted to take that girl's picture every time I saw her. I didn't blame her girl friends for putting an arm around her. I didn't blame the minister for seeing witchery in her eyes. I think I lost a piece of my heart that night.

Of the young men present was one

who seemed to me unlike the others — as though he was partially a stranger. The cut of his clothes showed a bit more style and his manners more polish. He was especially fine looking — had a little dash of the world about him, like he had been somewhere and seen something. He seemed well known to the company in general, was genial and courteous with all of both sexes, but a little more with Miss Chambers than the others. I learned he had been once a

for this evening only, a little exhibition of fancy dance by a couple you all know well. After the dance you'll find supper waiting for you in the Jenks' banquet hall. I will also announce that Joe Terrill, up on the ridge, gives a house warming to his new hotel a week from tonight. Of course there'll be a bit of a shindy."

Now the music starts again, and the future Francis Granger, the modest lion of the evening, escorts Miss Cham-



Negative (on Hammer Plate) by W. E. Vilmer,

Crown Point, Ind.

A WHITE SQUAD.

resident of the village, but had settled in a near-by city, had a wealthy father, had been through college, had graduated from a law school and had the world before him.

On went the dance until well past midnight — happy and joyous — every toe tingling with pleasure, every step enjoyed to the fullest.

At last came "Money Musk," the recognized windup of the program. Leb Wright rose again and said: "Now, young ladies and young fellows, the hop is generally over at this point, but we have the pleasure of announcing

bers to the center of the ballroom, when slowly and gracefully commences a waltz by this charming couple. The sweet poetry of motion is portrayed smoothly and deliciously; gradually it increases in ardor and interest, it grows in intensity, reaching almost a point of delirium. The music changes to schottish, to polka, and is followed by the dancers to a fury of dashes and plunges until the exhibition was over and the luxuries of the table were sought.

I retired to my bed to dream of witching eyes and golden hair.

DEVELOPMENT.*

CHAPTER III.

You will probably think that I am hammering in too forcibly this question of length of development regulating the contrast in the negative, but I am convinced that in the first place it constitutes the most important part of the "science of development;" and in the second place it has been totally ignored by former teachers.

To illustrate this I may mention that in 1896 I examined all the instructions issued by platemakers in England and America, twenty-four in number; thirteen of them made no reference of any kind to length of development, and the remaining eleven such slight references as "Develop after the tones are out;" "Develop until you can see the image at the back;" or, "Develop until you think it is dense enough." Not a single one made any reference, direct or indirect, to the fact that length of development increases contrast, although it is a means of control which is applicable to every possible developer, and every formula. The reason for this apparent neglect lies in the peculiar nature of pyro as a developer, which I shall refer to later on. If dry-plate development had just been worked out with one of the simpler modern developers the rule which I expound would have been laid down long ago.

In Fig. 11 I illustrate the alteration in contrast which is secured by different times of development with an ordinary outdoor subject. The first print is from a negative taken out of the developer at an early stage, only three and one-half times the appearance of the image (you will have this explained later on) and the result is a thin negative of insufficient contrast.

The second negative was left in longer (five times appearance) and the contrast between the tones is about sufficient. The third negative, developed for eight times appearance, has a forced unnatural contrast between the tones which reproduction has rather toned down. In the original there is a wiry

knife-edge kind of look which is not desirable in a photograph; had it been another subject it might have been summed up in the familiar phrase "soot and whitewash."

LIMITS OF THE RULE.

You must clearly understand that it is only within certain limits that the rule of increasing contrast holds good.



FIG 11a.—Factor $3\frac{1}{2}$.

When the developer has fully altered all the silver particles which form the high lights, increase of contrast ceases. This you will see by looking at Figs. 7, 8 and 9 in my previous article. When the top step is as tall as the thickness of the film permits it is of course impossible to further increase the steepness of the flight of steps. With slow landscape plates the top step can be made taller, and the inclination of the whole series of steps steeper, than you are likely to want, and care has therefore to be taken not to overdevelop. But there are some plates with which it seems impossible to attain more than a very moderate amount of steepness, they are usually (but not always) fast plates.

There is another entirely distinct limit. I have explained that when the particles unaffected by light and darkened by the developer such darkening is called fog. With some plates the fogging action commences at quite an early stage of development, and I think it may be taken as a general rule that when fog sets in, all increase of con-

* Copyright, 1900, by F. Dundas Todd.

trast in the negative ceases. The reason for this will be seen by referring to Fig. 2, where it will be seen that there are most unaffected particles for fog to act upon in the lowest step. The addition of fog is a leveling-up process.

DEFINITIONS.

Let me here edge in a couple of definitions. When I speak of different developers I mean different developing agents — such as pyro, metol, etc.— not merely different formulæ. When I speak of strength of developer I refer to grains of developing agent to the ounce, not merely changes in alkali.

FOG.

Perhaps I had better say a little about this somewhat undesirable agent — although sometimes it is usefully employed by skilled photographers.

My experiments indicate that it appertains far more to the plate than to the developer. In trials with six developers (all with equal amounts of alkali and no bromide) fog commenced at exactly the same stage of contrast with each. This trial indicated that it is simply untrue to say that one developer has less tendency to fog than another, when used in a similar state



FIG. 11b.—Factor 5.

of energy. In each case it continued to increase with length of development and would only cease when it had filled up all the lower tones or steps, or in other words, had uniformly darkened the film throughout. Probably tempera-

ture has much to do with fog, but I have not investigated this point. The use of bromide in the developer only holds it back for a time, and if that time is exceeded it appears vigorously.

HOW DEVELOPERS VARY.

You will soon find that I am no believer in the fetish of formulæ, or in



FIG. 11c.—Factor 8.

the much advertised superiority of one developer over another.

In a paper read before the Royal Photographic Society I described a comparison of seven developers, namely, pyro, metol, ortol, adurol, hydroquinone, kachin and glycin. All were made up with the same formula (no bromide) and compared under the same circumstances. The result may be summed up:

Effect on speed of plate, very slight and doubtful differences.

Searching out detail, no difference.

Fogging propensity, no difference.

Ultimate density power, no difference.

Appearance of image, wide difference.

Speed of working, wide difference.

There is one respect in which developers differ. One class of developers (represented by metol, rodinal and weak pyro) causes all the tones to appear very early in the course of development, and density seems to follow with comparative slowness. This class has the reputation of giving thin negatives because users are deceived by the rapid appearance of image and take the plate out too soon. In the second class of

developers (represented by hydroquinone (quinol), strong pyro, and adurol) the lowest tones or detail appear slowly and by the time they are out the high lights have attained quite a respectable amount of density, and density is afterwards attained quite rapidly. The usual tendency with these developers (which have low multiplying factors in a table I shall give) is to overdevelop and thus get too much contrast.

It really does not matter which developer you use if you take the plate out of it at the right stage of contrast; for all (variations in bromide excepted) give identical negatives if their action is stopped at the right moment. For general purposes it is more convenient to use a developer which is neither in the first class or the second but intermediate, density following the appearance of the image at a comfortable rate. It is a peculiarity of pyro that it belongs to the first or the second class according to the grains of pyro to the ounce of developer.

HOW TO DEVELOP.

1. Select a developer which gives a suitable contrast in a convenient time, and do not depart from it.

2. Stop development at that stage which gives the contrast required.

The problem therefore is resolved into one of

WHEN TO STOP DEVELOPMENT.

If a given formula always worked at a given speed, there would be no need of any other plan than that of developing for a fixed time to get a fixed amount of contrast. But unfortunately variations in temperament (and in amount of alkali, etc.) alter the speed of development enormously, and it is impossible to work at a uniform temperature.

It is absolutely misleading for writers to glibly advise a temperature of, say, sixty-five degrees, when nothing short of keeping the whole of the darkroom at the desired uniform temperature will secure the result. It is useless to warm or cool the developer alone, for within half a minute after pouring on it strikes

an average with the temperature of the room, plate and dish.

In the next chapter I shall describe the simple means I have discovered for timing development.

ALFRED WATKINS.

SENSITIZED POSTAL CARDS.

It is somewhat strange, in view of the postal-card craze that has existed throughout Europe for a number of years past, that the amateur and professional photographer have both failed to realize this important factor of amusement to the one and profit to the other. It is impossible to visit any foreign city without being able to obtain a pleasant souvenir of every point of interest, the familiar faces of royalty or those famous in music, literature or art. These postal cards are thus not only a source of revenue to the professional artist, but are highly cherished by the friend or relative at home who can follow every footstep of the wanderer, receive each day or two some visual token of the scenes visited and thus read the occasional letter that the hurry of travel permits, with far greater intelligent interests than otherwise. To the amateur they possess a double value in not only bringing about an inexpensive interchange of views taken, but in favoring the chosen friend with a scene of his surroundings or the face of one near to him.

We understand that the Rotograph people now carry a line of these sensitized postal cards in stock, coated upon either glossy or matt paper; and we would suggest that our friends give them a trial.

THE EDUCATIONAL CONVENTION.

In the past career of the Photographers' Association of America a convention has always been looked forward to with a certain amount of uncertainty. The foremost thought of the attending photographers was invariably bent toward prizes, medals, trophies, etc., the contention and strife was always strong before the convention, and oftentimes stronger afterwards. The only existing interest seemed to center on the winning

of prizes, beyond which little thought or action was devoted to the welfare of the profession. By eliminating awards (like those we received in our boyhood days at Sunday-school for prompt attendance, study, etc.) we hope to reach a higher, nobler, and more advanced state of conditions.

The boy who must be paid for going to school will not inbibe the instruction and learning that his companion who goes willingly and unawarded does; his award is the knowledge he gains, and the prize that he acquires is above all barter or purchase.

The Educational Convention of 1901 should appeal to all as an advanced school of photographers, a university of all photography combined; and all who have yet to learn (their name is legion) should with eagerness attend. The educational advantage will far eclipse anything heretofore offered.

Exhibits from photographers who are the head and front of the profession in the country, and who were beyond any competitive display of former days, will now exhibit. We have their promise and now want yours. There will be no medal in return for your efforts and attendance, but your production will hang side by side with the best, and honors shall be equal.

The executive committee are promising much, later we will promise more, and, finally, we will fulfill every promise. Will you come?

H. S. KLEIN,

Second Vice-president P. A. of A.

SECOND CHICAGO SALON.

UNDER THE AUSPICES OF THE ART INSTITUTE OF
CHICAGO AND THE CHICAGO SOCIETY OF
AMATEUR PHOTOGRAPHERS

The Chicago Society of Amateur Photographers has decided to hold its second salon in the galleries of the Chicago Art Institute from October 1 to October 22, 1901. The purpose of this salon is to bring together the best examples of the photographic work of the year, rigidly to be selected by a competent jury of photographers and artists.

Particulars may be had shortly by addressing the Executive Committee, Chicago Photographic Salon, The Art Institute, Chicago, Illinois.

DR. F. DETLEFSEN, Chairman,

F. DUNDAS TODD,

W. B. DYER,

LOUIS A. LAMB,

Committee on Publicity and Promotion.

JURY OF SELECTION.

J. H. VANDERPOEL,

Lecturer on Figure Drawing and Painting in the Art Institute of Chicago.

CHARLES FRANCIS BROWNE,

Lecturer on Landscape Painting in the Art Institute of Chicago.

WILLIAM SCHMETDGEN,

Black and White Illustrator on the Chicago Record-Herald, and Amateur Photographer.

HENRY TROTH,

Philadelphia Photographer.

WILLIAM B. DYER,

Chicago Photographer.

AN EXPANDING BUSINESS.

Only six months in this country and already forced to double their floor space—that is the record that the Rotograph people have made for themselves. The superb quality of the paper has forced itself to the attention of all photographers, and in order to be able to properly fulfill all demands the future home of "Rotograph" will be 101 Fifth avenue, New York.

THE A. M. COLLINS MANUFACTURING COMPANY, Philadelphia, has just issued a price-list of photographic card stock for 1901, a special feature of which is the excellent illustrations of the various styles it manufactures. A copy can be had for the asking.

NICHOLSON'S ADJUSTABLE LENS SHADE

Is the name of a little article that will be very useful to those who aim at pictorial photography and have been often inconvenienced by the sun shining into the lens when making exposures

against the sun. At the reasonable price of 50 cents it should sell well. Manufactured by the Jackson Lens Shade Company, Jackson, Michigan.

A NEGATIVE ALBUM.

The Globe-Wernicke Company, always on the lookout for new features, has just put upon the market an article that will interest every dealer in photographic supplies.

The Globe Photo Negative Album is a handsomely bound cover containing fifty removable envelopes, printed with a form for information desired concerning the negatives or prints contained. Each envelope has two compartments, giving accommodation for one hundred or more negatives.

Any desired print or negative can be found in a moment, together with all desired information as to time of printing, etc.

The Globe-Wernicke Company is not only a lover of system itself, but is educating all classes in the same direction.

Full particulars of the above will be found in our advertising pages.

EDITORIAL TABLE.

U. NEHRING, 16 East Forty-second street, New York, has just issued his lens catalogue for 1901, in which are fully described the Ampliscopes, Ray screens, Tele-photo and Anastigmatic lenses manufactured by him, also shutters.

HIRSCH & KAISER, 7 Kearney street, San Francisco, California, have just issued their first catalogue. It is a beautiful piece of presswork, on fine paper, a positive treat to examine. The contents are of interest to every photographer.

ANDREW J. LLOYD & Co., 323 Washington street, Boston, Massachusetts, in our advertising pages, announce a couple of novelties that are good. One is a shutter release, the other a tray rocker. We have seen them both in use and can say they are all they claim to be.

THE CENTURY CAMERA COMPANY, Rochester, New York, makes its debut with its first catalogue just to hand. Its introduction is a charming little article on "Photography for pleasure, for profit," which every one should read. It will take but five minutes' time, but it has more in it than many articles that fill up ten times the space. The

cameras themselves possess many unique features, and deserve the consideration of all prospective camera buyers.

AMATEUR PHOTOGRAPHERS will be interested in a line of new mounts just introduced by the A. M. Collins Manufacturing Company, 527 Arch street, Philadelphia. They are gotten up in two colors—Scotch gray and carbon black. Samples can be seen in the hands of all dealers; failing them, from the manufacturers.

THE GUNDLACH OPTICAL COMPANY, Rochester, New York, has just issued its catalogue for 1901, containing a very complete exposition of the cameras and lenses manufactured by it. The Korona camera is in a sufficiently large number of styles to satisfy all fancies, and the same may be said of the Turner-Reich Rectigraphic and Symmetrical lenses. The catalogue can be had for the asking.

THE ROCHESTER OPTICAL & CAMERA COMPANY, Rochester, New York, has just sent out its 1901 catalogue. Typographically it is a beautiful specimen; but that is not the best of its merits, for in its hundred pages are found full descriptions and illustrations of the scores of instruments made by this firm and they are all interesting. There are about one hundred reproductions of photographs scattered about the book. It can be had free on request.

THE PHOTO-BEACON.

AN ILLUSTRATED PHOTOGRAPHIC JOURNAL,
Published Monthly.

Yearly subscription, \$1.00, in advance; single copies, 10 cents; foreign subscription, \$1.36.

All remittances should be sent by postoffice money order, draft or registered letter to the order of THE PHOTO-BEACON COMPANY.

Unless otherwise directed, subscriptions will commence with the number issued during the month of receipt of subscription order.

Accepted literary articles will be paid for upon publication.

To insure insertion in any particular number, copy for advertisements must be received not later than the 20th of the month preceding.

All communications relating to THE PHOTO-BEACON should be addressed to

THE PHOTO-BEACON COMPANY,

SECURITY BUILDING,
CHICAGO, ILLINOIS.

Eastern Office: 611 to 621 Broadway, New York.



Negative by E. M. Blaine,

Chicago.

A BIT OF THE WOODLAND.

THE PHOTO-BEACON.

EDITED BY F. DUNDAS TODD.

Published by the Photo-Beacon Co., 409 Security Building, Chicago.
Eastern Office, 611-621 Broadway, New York.

Entered at the Postoffice, Chicago, as second-class mail matter.

VOL. XIII.

JULY, 1901.

No. 7.

REMOVAL NOTICE.

The office of THE PHOTO-BEACON is now located at room 409, Security building, Chicago.

THE AIM OF ART.

It may be that I am too much of a utilitarian, too materialistic, but when I become interested in anything my first question is, "What is it?" and the next follows closely, "What is it good for?" I have propounded these questions to myself about art a thousand times, and the only answer I could get was that the purpose of art is to give pleasure. That did not prove a sufficient answer to me, and so I kept hammering away at the proposition until at length I have got one that is more satisfying, because more utilitarian, and since it is the latest product of my cogitations, I submit it to my readers, reserving to myself at the same time full liberty to change my views should more convincing ideas find entrance into my brain.

To me the beginning and end of wisdom is for every human being to understand his environment. Practically all of our troubles are due to ignorance of nature's facts and nature's laws. We ordinarily ascribe our condition to luck, fate, predestination, but when we simmer the whole thing down it will be found that the actual cause was ignorance on our part or of some other person or persons. The other fellow's ignorance is just about as injurious to us as is our own, therefore self-interest compels us to educate him as well as

ourselves. Herein rests strongly man's obligation to his fellow man.

In us all is placed a natural instinct to study nature. The child shows it decidedly in his love for flowers, birds, cats, dogs and, in fact, all life. We are foolish enough to suppress it, in the past from theological reasons, in the present from social reasons — the child dirties his clothes. But the business man and the workman must understand material and natural processes, therefore they are compelled to study nature. The natural instinct still prevails, and the sense of beauty leads us to nature pure and simple.

It is always pleasant to gratify a natural desire, but there are some people so constituted that they consider nature's tendencies as wrong, and that they ought to be twisted round. You will find this in every human interest, but lest I raise a hornet's nest around my ears, I will specify only the one that we are at present directly considering. The sense of the beautiful to my mind is a provision of nature to draw us to a study of our environment, so that we may clearly understand its facts and laws, and thus utilize them for our subsistence and comfort. We are animals first, and if our animal nature be out of harmony with our environment, disease and death must follow. If the cultivation of the sense of beauty makes us better fitted for our environment, then it is advantageous, and ought to be extended; but if it have not this result it may be positively injurious.

Here, I think, is the line of demarca-

tion between the extremists in photographic art and myself. They look upon beauty as an abstract proposition, absolutely without reference to any fact of nature. To them a piece of paper or a canvas is only an area with possibilities. This area may be broken up into spaces by lines or masses in such a manner as to satisfy the sense of beauty, and these lines or masses need not be like anything in the heavens above, in the earth beneath or in the waters under the earth. This is sensuousness pure and simple, and whether in religion or in art, if carried to its logical limit, means the suppression of the physical, the loss of virility, sterility in the individual, and the overthrow of the race by one more material. The history of the world provides the facts to prove the soundness of the conclusions.

Such a conception of art is naturally abhorrent to American people who are nothing if not practical, and little wonder that the recent vagary which grew up like Jonah's gourd, withered in little more than a night.

Now that the nightmare is past let us do all that we can to foster the development of the sense of beauty, not as an abstraction, but in the concrete form of nature's facts, so that we may be whole men and women, both physically and mentally, not mere mental processes encumbered with a load of gross material matter.

F. DUNDAS TODD.

PHILADELPHIA SALON.

The Photographic Society of Philadelphia announces that their next Salon will be held from November 18 to December 14. All pictures must be in the hands of the committee not later than October 20. The members of the jury are Charles I. Berg, of New York, Miss Frances B. Johnson, of Washington, Mr. Allen Drew Cook, of Philadelphia, Mr. Herbert M. Howe, M.D., and Mr. George W. Hewitt. The committee consists of two architects who are well-known amateur photographers, two professional photographers and one gentleman who is a director of the Academy,

was at one time a painter and is now a connoisseur and a collector of pictures — a very broad-minded and representative body of men.

BAUSCH & LOMB PLASTIGMAT f-6.8 CASH PRIZE CONTEST.

FIRST PRIZE — CASH \$100. SECOND PRIZE — CASH \$50.

In order to secure at once specimens of work done with our new Plastigmat f 6.8, we offer the above amounts in cash for the best and second best pictures submitted on or before July 20, 1901.

CONDITIONS.

No restriction is given as to size or subject. Exhibits will be judged on the basis of artistic composition, interest of subject and the extent to which the optical possibilities of the lens are demonstrated.

Negatives or negatives and prints may be submitted.

We must have assurance that negatives are made with Plastigmat f 6.8.

Exhibits must be in sealed packages marked "Plastigmat Contest" and with an assumed name referred to in a sealed letter also marked "Plastigmat Contest." The letters will not be opened until after the awards have been made.

Competent and disinterested judges will pass on exhibits.

It is understood that we have the right to reproduce any picture submitted, whether copyrighted or not, and that the ownership of negative will remain with the contestant if desired.

All contestants will be notified of result of contest, and due credit will be given to all pictures used. Prizes will be paid on the 30th day of July.

Contest closes July 20, 1901.

BAUSCH & LOMB OPTICAL CO.,
Rochester, New York.

PICTORIAL LANDSCAPE PHOTOGRAPHY.

The articles by Mr. John A. Hodges on this subject that appeared in last year's volume are now in type, and will be issued in book form before the end of the month. Price, 75 cents in paper; \$1 in cloth.

PORTRAIT POSING AND LIGHTING.*

BY J. H. VANDERPOEL,

Head of the Department of Figure Drawing and Painting in the Art Institute of Chicago.

CHAPTER VII.**THE CHILD IN PORTRAITURE.**

In the everyday portrait of a man, dignity and force of character well nigh form the limit of artistic expression

ventions of dress being less strict, lend to greater picturesqueness of form and particularly to happier spotting in the black-and-white color values.

But it is in depicting the child the photographer will find his ideal of artistic expression. Why? Because the child has in its nature and make-up all that older people have frequently to assume. Natural grace, ease, dignity,



FIG. 30.

The attitude of the child here is so little in keeping with the intention that it is rather suggestive of the street arab than a fairy. The whole thing is false, and taxes photographic art beyond its limitations.

(leaving out of question the matter of tone, to which reference will be made later), the conventions of dress and manner being the main cause of the limitations. In the portraiture of women a greater variety of possible artistic requirements is presented — grace of line in the action of the figure and the con-

and above all, capacity for unconsciousness if handled right. Then they are picturesque in any attire, even the fond, but frequently mistaken, mother, can not take it altogether out of them, with all her furbelows and ribbons. This is a hardship the appreciative photographer has to work against, the overdressing of children. His ingenuity,

* Copyright, 1901, by F. Dundas Todd.



FIG. 31.

This figure is very happy, as it is graceful and childish, giving a momentary action in which the expression is entirely in keeping with the movement.

candor and diplomacy must come to his aid for its modification, otherwise he finds, as is often the case, that he has photographed a lot of conflicting values, in the meshes of which he finds nearly lost and all out of relation, the head of the little sitter. It pays to be successful in the photography of children. Touch the heart of parents through successful portraits of the young folks, and you have another life-long patron.

Unconsciousness is a rare quality in the human animal after the age of childhood, but it is as charming as it is rare. To see a man or woman with it lends added charm to their characters, but to see a child without the possibilities of it makes us feel sad. The over-precocious child, often but a mimic man or woman, devoid of childish ways, and deemed amusing by the thoughtless, lacks the charm of childhood and their portraits can give but little lasting pleasure. The charm of unconsciousness by nature belongs to the child, and it behooves the photographer to cultivate the appreciation of it. By patience

and ingenuity endeavor to catch the little one doing a childish thing. To give all of child life in its infinite variety in each picture is as impossible as it is unnecessary. But there is no need of its entire exclusion. If photographers were less indifferent we would see more of true child life depicted instead of so much sentimental affectation. That child portraiture offers insuperable difficulties is readily granted, but like all other difficulties, they must be encountered and met intelligently. A love for children and a sympathetic understanding of child life are certainly primary causes for success in their portraiture. Infinite patience in possessing yourself of their good will must be exerted, for



FIG. 32.

A sweet little nature, charmingly interpreted in expression and pose. The lines fill the space most agreeably making an effective composition.

all kinds of dispositions are encountered, from the self-willed little coward, who bawls as if being led like a young pig to the slaughter, to the little demure child who needs but a kindly look to inspire her confidence. In this work with children the excessively nervous operator is at a decided disadvantage, as was related to me by a photographer of his operator, who, dancing about like a harlequin to attract the attention of a younger child in a group was rebuked by an older one and asked to "quit his kiddin' and take their picture."



FIG. 33.

This is a most happy interpretation of child nature full of reserve and filled with wonderment at what is going on. The little figure is full of the character that relates to the child, and goes far to show what added charm may be given the picture of a child if the figure be intelligently used.



FIG. 34.

A little conscious, but rather that of embarrassment than precociousness. It is girlish and simple to a degree—the lax arms are particularly engaging; the head, broadly lighted, relieves delicately yet forcefully from the simple flat tone of the paneling.

Every man will tell you that his particular profession or mercantile pursuit offers incomparable difficulties. This is simply because the human nature he meets is the same the world over, and sometimes forgetting that he adds his share to the difficulties of others making up the sum total to those in other professions than his own. Surely the successful men in his profession of photographic art have met and encountered all, and possibly more, than

the complainant. But instead of wasting his time commiserating himself, occupies it in exercising his patience, skill and ingenuity. This combination of patience, ingenuity and skill, exercised with appreciation and intelligence, is most needful in photographing children—patience that they may be kept under control, ingenuity which, with a developed imagination, will devise childish occupation for the little sitters so that all the naïveté of action and expression may be excited, and lastly, skill such as relates to choosing the best point of view and the lighting. The capacity for repression being limited in a child (which very limitation lends to unconsciousness), the whole little being, head, body, hands and feet, act in unison and in character with its mental preoccupation and facial expression; hence in photographing younger children anywhere below the seventh or eighth year, according to its development, the entire figure may well be used to give a true characterization. For this preoccupation of the whole being of the child illuminates the face and gives a charm of expression to the features not to be obtained any other way.

A photographer's studio is, after all, his workshop, and he can not give it an atmosphere through an environment of backgrounds, accessories and lighting to suit the infinite variety of human nature that constitutes his patronage. This is impossible. On the other hand the atmosphere of the average studio is so coldly conventional and forbidding in its fittings that it precludes any feeling of ease with familiarity of surroundings such as would act agreeably upon the feelings of the sitter. Hide all the paraphernalia used in emergency cases, as they do in hospitals and clinics, for fear of frightening the patient into hysterics or convulsions. Of course, the studio that is turned into a photograph factory is altogether out of the pale of consideration, as the persons coming there scorn to give the artistic and fitting any thought beyond condemnation. But the man who has professional pride, as well as art feeling, and who finds himself reaching out for

the best his art can produce for him, the appeal comes home. The average difference between equipment of different classes of studios lies rather in the expenditure of dollars than taste.

Children may be lacking often, like their elders, in good taste, but without being able to account for it, they are most sensitive to the spirit in the atmosphere of a place—if it be forbidding and uncanny they will shun it. Note how a certain house in a neighborhood is most popular with the children, and ask why. Because there is something in the atmosphere of the place that satisfies them and excites their love. From a purely business point of view photographers can afford to make friends of children, for, sure as fate, success with the child means the patronage of parents and friends. A few well-selected toys, such as will excite mental interest rather than boisterousness, something to hold the eye and catch the mind, and the operator will soon have working material. The conventional studio furniture should be discarded, as it is most of all out of keeping with children. A shallow and low settee, a mere box covered properly, something upon which they can crawl easily, allowing for abundance of action and freedom to the arms and legs, is a capital article in the studio.

Nothing is more beautiful in the human family than the sight of natural devotion between mother and child, and yet how rarely it is even suggested through the art of professional photography. True, the main motive is the portraiture of the mother and child, but that does not preclude a suggestion of their true relation. Too often the mother is but used as a prop to hold the child, suggesting rather the hireling than a mother. A little more expression of true sentiment and human nature as it really is will do much toward dignifying the art and take it out of the commonplace factory product.

THE PHOTO-BEACON "Exposure Tables" are guaranteed to be correct. Price, 25 cents.

COMPETITION No. 37.

The pictures sent in for this competition were rather disappointing. The purpose in setting the subject was to provide scope for our readers to display their knowledge of decorative effect, or, to put it in other words, to demonstrate their ability to break up a given area by means of lines into small-



Negative by O. V. Engeln,

Dayton, Ohio.

FIRST PRIZE.

er spaces that would be pleasing to the eye. Only one competitor seemed to realize the possibilities of the competition, and the judges have awarded the first prize to him, but they felt that no other was worthy of a place on the prize list. A large number of the competitors contented themselves with photographing one large branch attached to the parent tree, with a landscape for a background. It would have been better if these gentlemen had selected, as did the prize-winner, a certain branch or spray that possessed pleasing lines and curves and had photographed it against a plain background.

Mr. Engeln kept within the terms of the rules by selecting a branch without leaves, but, as a matter of fact, his picture depends very largely for its charms upon the flowers on the sprays. We would have preferred if even the blossoms had been wanting.

We would draw special attention to Competition No. 40, where the subject is a branch of a tree with leaves, and would suggest that our readers give this subject very careful consideration. Let them experiment with many small branches, none of which need be over a foot or two in length, and see how effectively they can decorate a certain space with it. In connection with this subject, we might recommend to them that they secure a copy of a book entitled "Composition," by Dow, who is connected with the Pratt Institute, of Brooklyn. It deals particularly with the Japanese conception of art, which is based very largely on the arrangement of lines and masses. The book costs \$1.50, and is well worth the price to any one interested in pictorial photography. It ought to be readily secured through any bookstore.

The Baker & Taylor Company, 5 East Sixteenth street, New York, are the publishers.

First prize — Oscar Von Engeln, 140 La Belle street, Dayton, Ohio.

FUTURE COMPETITIONS.

Competition No. 39 — Genre pictures, or pictures that tell a story. Closes July 31.

Competition No. 40—Branch of a tree with leaves. Closes August 31.

Competition No. 41—"At Home" Portraiture, that is, portraits not made in a studio. Closes September 30.

Competition No. 42—Snap-shot pictures. Closes October 31.

Competition No. 43—Landscapes. Closes November 30.

Competition No. 44—Flower pictures. Closes December 31.

RULES.

1. There is no restriction as to the number of pictures to be sent in. On the print there should be written the title and sender's name and address, but nothing else. Accompanying, a letter or postcard should be sent us, giving full particulars of date, light, plate, stop and exposure given; also the printing process.

2. Mark outside of package with number of competition. Ordinary letter rate must be paid where descriptive matter accompanies prints.

3. Prints are not returnable.

PRIZES.

First—Books to the value of \$5.

Second—Books to the value of \$2.50.

Third—Books to the value of \$1.

Any books, on any subject, or if preferred, any article we can buy in Chicago.

SUBSCRIPTION COMPETITION.

In our March issue we intimated that the first prize in this competition had been gained by Dr. Detlefsen, Chicago, and that there was a tie for the next two prizes. This has now been decided. The second prize falls to Fayette J. Clute, San Francisco, while the third goes to W. H. Lyman, Buffalo, New York.

THE Royal Photographic Society of Great Britain announces that it will hold its forty-sixth annual exhibition from September 30 to November 2, 1901, at the New Gallery, 121 Regent street, London, W., England. Full particulars on application to the secretary, John A. Hodges.

VOIGTLANDER AND I.*

BEING THE REMINISCENCES OF JAMES F. RYDER.

CHAPTER VII.

JEDUTH GRAVES.

A few days after the dance, Mr. Jenks introduced me to a man who had come to his hotel on business relating to an estate in which they were both interested. His name was Graves. He was a cousin to Jenks, and he was also a tavern-keeper in the adjoining county, on the other side of the mountains.

He took a fancy to me at once and wanted me to go home with him. He said no one had ever been there taking likenesses and he thought I could do well. At least I could have a good time—plenty young people, socially inclined, and the older class genial and hospitable. Great trouting, over there; the brooks so full they crowd each other. "I'll take a day off and show you around. Come! What say, young fellow?" I told him I was "as wax in his hands"; that I would follow wherever he led.

"Now, that's the stuff, young fellow," said Mr. Graves. "I keep a strictly temperance house. No drunkards made or harbored about my premises."

Having no inclination for indulgences of a barroom character, I was well pleased, and wondered why he should gratuitously give me such information. Perceiving him to be agreeably eccentric, with a leaning to humor, I soon adjusted myself to his whimsicalities, and gave him good length of rope. His philosophy was to make the best of the world as it unfolded itself to him, and to never "cry over spilled milk."

The stage which was to carry us over to his place was due at noon. I packed up and was ready for the stage coach when it halted for dinner at the Jenks tavern.

I bade good-bye to Mr. and Mrs. Jenks and Henry—whose capacity for custard pie I shall never forget—and away we started up the mountain. It was a slow, tedious pull to the summit, from whence it was down hill all the way to our destination.

* Copyright, 1900, by James F. Ryder.

Mr. Graves shortened the distance with entertaining talk. His fancy for me was gratifying and complimentary. He treated me like an old friend, was confidential and affable, was ready to tell me everything about himself and willing to learn all I was inclined to tell him of myself. I soon learned his mother and his wife were the best of women — his mother the very best in

stirring. He thought he would like to be a pedler, a horse jockey, or a sailor. The adventurous spirit in him craved activity.

After "some words" with his father one day he left the plow in the furrow and engaged in the wild life of a raftsman, took to floating logs down the river to supply the lumber market. The panoramic variety of rugged banks,



MY SMALL SISTER KATE.

Taken by James F. Ryder in 1849.

the world. That information was to me a guarantee of his own worth.

He said he was born in the mountains of Pennsylvania and brought up as farm boys usually are — to work, and told me in serious confidence he did not like it. Farm life, he said, was too monotonous. He tired of seeing the same fields, the same plow and oxen, day after day, and wanted something more

rocky shores, through the woods, past green fields and occasional villages, past which the river carried him, made a pleasant change which he gladly welcomed. A long sweep oar at either end of the raft by which to steer and keep it from running into the shores was all the care necessary. There was no machinery to get out of order, no firing up or watching of steam gauge. To drift

with the current was easy. To tie up at night against the river bank, a crew of two men could do. It was quite a jolly life.

One memorable night, in a gale, he was swept from the deck and apparently drowned. He was found next morning upon the sands of the shore where he had been washed by the waves.

Now this being Mr. Graves' story rather than my own, I step aside and let him tell it in his own words.

"Well," said Graves, "as soon as it was noised about that a man was drowned and on exhibition, people gathered as quickly as though it had been a dog fight. As I never had been drowned before it was a new experience to me. I seemed to know I was in some way the attraction. I could hear, as through a fog, what was being said, but could not move or speak. Most all of them said 'poor fellow!' One chap, who I thought must be a raftsmen, said 'poor devil!' One woman said, 'I wonder if he had a wife and children; then burst out crying. A man said, 'He's not lying comfortable; you fellows lift him by the shoulders and I'll swing his legs around.' Another asked, 'Don't any one know this man?' The answer was, 'No, he's a stranger; probably from up river somewhere.' Another spoke, saying, 'Poor fellow, his troubles are over. We've all got to go that way sooner or later.' A woman said, 'God save me! but I've seen that man before. He's Jeduth Graves, from Great Bend.' Recognizing the name and reviving, I said, 'Right you are, madame.'

"It is so unusual to hear a drowned man talk the crowd rushed away in a panic."

"Well, sir," said Graves, "that woman hustled for a carriage, loaded me in, took me to her hotel, nursed me back to life, and I married her. Quite romantic, wasn't it? She was a widow and owned the hotel. It was a case of love at first sight. You've heard of such things, I expect. We seem to have been just made for each other, and for the hotel business. We just run that house to the queen's taste."

This latter declaration I found to be true.

On arriving at the hotel he introduced me to Mrs. Graves, who was a comely woman and a typical landlady of that period. She made me comfortable at once, taking me about the house to the various rooms, that I might find my choice. When properly situated the ballroom offered the best light and I selected it here.

On exhibiting my specimen pictures I invariably secured the interest of those who saw them. The newness of the art and the curiosity of most people inclined them to be interested.

One particular daguerreotype I had seemed to capture every one who saw it. It was a picture of one of Dan Rice's circus wagons. I showed it to Mr. Graves as I was unpacking. He was quite pleased with it and borrowed it to show to his wife.

The first time I went into the dining-room was for supper the evening of my arrival. The table was filled with a goodly number of guests, who seemed regular boarders. Mr. Graves was seated at the head of the table and placed me at his right. He gave me a rather unique introduction. He said: "This young fellow is a likeness man. He's going to stay with us for a spell and give you a chance to have your likenesses taken." He then started the Dan Rice picture down the table on one side and it came back on the other, every one examining it with apparent interest. Mr. Graves then said "That name of Dan Rice on the wagon was the most natural thing he ever saw." Myself and my business were advertised from that minute.

During the evening I busied myself unpacking and putting things in shape for business. About eight o'clock Mr. Graves came in and said, "Young fellow, I think it time to knock off and call it a full day. Just come down stairs. I want to see you in my private office."

I followed him down stairs through the general business and reading room, where he unlocked a side room into which he passed. He took the key



Negative by W. B. Dyer,

A STUDY.

Chicago.

from the lock, inserted it in the inner side, locking us in. He pointed to an arm chair on one side of a table, which I took, and he seated himself in the other, on the opposite side.

Said Mr. Graves: "Hot or cold?"

I did not understand. I was a little disconcerted at being locked in. He got up from his chair, opened an inner door near the corner of the room where I saw shelves, from which he took and placed upon the table a spirit lamp, a little metal stand and a small kettle, which I inferred was for heating water, two fine-looking tankards, with hinged metal covers, two drinking glasses and a decanter with something in it. I could no longer misunderstand.

"Prefer it hot, I suppose," says Graves.

"Why, Mr. Graves, you told me you kept a strictly temperance house."

"Well, so I do, young fellow. Never sold a drop, but sometimes for sociability—did I understand you hot?"

"Yes, Mr. Graves, and to better acquaintance."

While the water was heating Graves continued: "I abominate a sot. I will not harbor drinking men. I wouldn't have a bar in my house, but in my private office I sometimes like to sit with a friend—if I like him well. Now there's Father O'Halleran, as kindly a man as you could find, occasionally spends a half hour with me. He told me the other evening how he saved a man's life. A dissolute bum sort of fellow was telling a hard-luck story. Hadn't tasted food or had a drink for some hours; wanted a little help. The father took from his pocket a silver dollar and said, 'What would you do if I gave you that?' 'I'd drop dead,' said the bum. The father said, 'I put the coin back in my pocket and saved the poor fellow's life,' adding, as he sipped his glass, 'Graves, you get a good brew on this.'"

Without claiming to be expert in "savors" and "odors," I am impressed with the insinuating quality of a "hot Scotch," especially two. One on either side of a solid, thick, smooth surfaced,

time-colored table. The ingredients and construction play a considerable part as factors. Jeduthan Graves certainly possessed a master hand and well-balanced eye for proportion. A thin glass, a dallying sip, lingeringly enjoyed, the grateful fumes rising to the nostrils—brainward—while the soothing liquid seems to find the heart, makes a fellow forget his enemies and believe 'tis a good world after all.

CHICAGO PHOTOGRAPHIC SALON.

We intimated in last issue that the Chicago Society of Amateur Photographers had decided to hold its second salon in the galleries of the Chicago Art Institute, October 1 to 22, 1901. In connection with this salon we would draw special attention to the very judicious manner in which the committee have selected the jury. The members decided that the scope of the salon should be as wide as possible and that it would be unwise to narrow it down to any one school of photographic art. At the same time they wished in no uncertain way to make it clear that the aim of their efforts was the furtherance of pictorial photography, and so they endeavored to secure men who were recognized in the art world as entitled to speak with authority. Even a glance at the names of the members of the jury will show that they have attained their purpose. In Mr. Troth they have secured a man who has had a reputation for years as a pictorial photographer, a man who has been both a judge and an exhibitor in salons. In Mr. Dyer they have a man whose special leanings are toward what is known as the new school. Mr. Vanderpoel is a recognized authority on figure and portrait painting, while Mr. Browne occupies the same position in landscape work. Mr. Schmetdgen is known far and wide as a black-and-white illustrator, but, in addition, he has demonstrated his thorough familiarity with photography. No more comprehensive jury, we feel, could have been selected, and their decision will certainly carry weight and influence.

**DETROIT AND THE EDUCATIONAL
CONVENTION OF 1901.**

There is not a more beautiful city
or a more desirable place to hold a con-

the entertainment of the photographers
that attend this year.

There will be a boat ride, of course,
a trip to the Flats—"the Venice of



Negative by W. B. Dyer,

Chicago.

BALLADE OF THE PIPE.

vention than Detroit—the convention
city, and the photographers of Detroit
will have everything well in hand for

America"—will be one of the leading
features of entertainment. A trolley
ride through some of the most beauti-

ful residence streets of the city, to be followed by a lunch in one of the parks, and returning to the city by boat, is another feature for an evening's entertainment. Then there will be an afternoon at the Detroit Museum of Art, where we will be the guests of Professor Griffith, who will have a special exhibition of original photographs of the leading portraits of the world.

This exhibition Professor Griffith is collecting especially for the entertainment and instruction of the visiting photographers.

The ladies are to be looked after by a special committee, and one of the features in contemplation is a morning trolley ride around the famous Belle Isle Park, which is a pleasure that every lady will enjoy and never forget.

D. D. SPELLMAN,
Chairman Local Committee.

**LET EVERY PHOTOGRAPHER MAKE
AN EXHIBITION AT THE EDU-
CATIONAL CONVENTION.**

The officers of the Association feel that in abolishing the prize system they have opened the way for a larger and better exhibition of photographs than ever before, and they are certainly meeting with much encouragement from the fact that they have received promises of exhibits from a number of the leading men who are known the world over for their ability, but who have seldom, if ever, made an exhibition of their work at a convention, and never competed for a prize. The plan this year is one that ought to develop the individuality of the exhibitor. There being no class rules or no size restrictions, and, above all, no fear of getting left if one does not happen to strike the fancy of the judges, will give an opportunity for every exhibitor to do his best in getting up something original.

It is a fact that there is nothing that brings out the best that is in one, as the preparation of an exhibit, the planning of which can not fail to bring out some new thought, and one will be well repaid for the time and labor spent in its preparation.

We have made arrangements for

an excellent gallery in which to exhibit the work. All exhibits will be evenly lighted by daylight, and there will be a harmonious arrangement of the exhibits so as to get the best effect.

Of course each exhibitor will do his best, but while there are no judges or prizes there will be criticisms and comparisons by the photographers themselves, and the exhibition this year will certainly be one of the most interesting and instructive, and bring out more new ideas than any other photographic exhibition.

There are no restrictions as to size or number, so let every photographer send something and then come and see how his work looks alongside the other fellow's, and at the same time see what the other fellow is doing.

Do not delay, but commence at once to get up something for the Educational Convention. Exhibits should be in Detroit by August 1.

D. D. SPELLMAN,
First Vice-president.

**RAILROAD AND HOTEL RATES FOR
THE EDUCATIONAL CONVENTION.**

The railroads have granted a rate of one and one-third fare on the certificate plan, with return limit good leaving Detroit August 14, at midnight. Photographers must secure certificate when buying ticket, in usual way.

Arrangements will be made for a special excursion to Buffalo by boat, leaving Detroit at the close of the convention, giving the photographers from the West a chance to visit the Pan-American Exposition.

Hotel headquarters will be the Russell House, rate \$3 to \$5, with a special rate of \$2.50 for a limited number with two or more in a room. Cadillac Hotel rate, \$3 to \$5; St. Clair, \$2.50 and upward; Griswold and Wayne, \$2 and \$2.50; and other good hotels, rates from \$1 per day upward.

Those desiring to engage hotel accommodations can do so by addressing D. D. Spellman, Detroit, Michigan, first vice-president P. A. of A., and stating what accommodation will be wanted.

A NOVELTY IN INTENSIFICATION.

When a weak negative is intensified by any of the ordinary chemical methods (uranium excepted) the process may be justly termed a building-up process, for the already evident image is increased and strengthened by the deposition thereon of a more or less insoluble metallic salt from the intensifying preparation.

When mercuric chloride is used, the

If the above were an absolutely correct statement of the reaction, it is manifest that when the last trace of silver image on the negative has been chloridized by the mercuric salt, the reaction would cease, and only so much calomel would have been formed as corresponded with the valence, the total valence of the silver, and it would make no difference how long the plate were left in the solution.



Negative by Dr. C. H. Parker,

Chicago.

MADONNA AND CHILD.

reduced silver image in the negative deprives it of one atom of chlorine, thereby converting it into mercurous chloride, or calomel, as the drug sharps call it. This calomel is deposited on the film of the negative in close contact with the silver image which, by the way, was itself converted into chloride of silver during the reaction, and the two chlorides have probably combined as a double chloride of silver and mercury.

It is also manifest that in such a case the negative would have been changed in appearance only from a transparent, glass-supported film, bearing a dark image of metallic silver, to a similar film bearing a white image, for both chloride of silver and calomel are white salts.

What really happens, though, is that within a very brief period after the negative has been placed in a solution of mercuric chloride (corrosive sub-

limate) the entire film is changed to a grayish white, showing that the reduction of the mercuric to a mercurous salt bears but a very slight relationship to the primary silver image. It would seem as though the reaction first started by the silver image, continues right along on its own account, and ceases only when the whole of the mercuric salt has been converted, or, at any rate, until the entire film is thickly covered with its reduction product.

Nobody, I think, has given specific directions that would help one in judging just how far it is proper and safe to continue the blanching of a negative in the corrosive sublimate solution, so that the good guesser is the only one who is likely to have complete success with it.

When the negative has been whitened as far as the operator's guesser lets it go, the next step is to rinse it very thoroughly, and then immerse it in a solution of ammonia or of a soluble sulphite, either of which will change the white deposit to a blackish one. If the whitening process has been carried just far enough, the ammonia bath will yield a good intensification. If a slip has been made in the whitening, or if the faintest trace of hypo remained in the film when it was placed in the mercuric solution, there is bound to be a complete failure.

All of the old intensifying processes in which two interdependent baths are essential, are as unreliable as the one referred to above, and for practically the same reasons; but there are two preparations now before the public that work beautifully and surely, and whose action can be regulated to a hair's breadth. One of them is a German production, "A. G. F. A.," which is very well and very widely advertised, and with which most amateur and professional photographers are familiar. The other one is an American product, and, unlike that made in Germany, is supplied in crystal form. Both of these intensifiers work as single solutions, and the intensification is completed in a single operation.

The American intensifier ("Pfabe's

Silver Intensifier") has never been extensively advertised, and its peculiar merits are, consequently, as yet but little known. Here is the way that it works: You have developed your plate and found, after fixing it, that it is too thin to be of any service as a printer. You rinse it for five or ten minutes to get rid of most of the hypo, but need not go to the pains of removing *all* of it, for a little hypo remaining in the film will by no means interfere with the action of this intensifier, as it would with *any other* (but it is necessary to make sure that the plate is fully fixed), and then you place it in a tray, film up, and pour a solution of the Pfabe salt onto it. In a short time the faint negative image will be seen to grow in strength, and, against the black background of the tray, will appear like the positive image on a daguerreotype. The image is allowed to grow to whatever strength is desirable, the apparent positive image on the negative being a counterpart of the positive image that will afterwards be producible from it on printing-out or developing paper.

This steady and sure production of an apparent positive image on the negative is a remarkable feature of our American intensifier, and its value as an aid in judging the depth to which intensification is to be carried can hardly be overestimated. This feature of Pfabe's intensifier, together with the fact that the entire elimination of hypo is not an imperative preliminary to its successful use, puts it in a class all by itself.

The image produced by this intensifier, like that produced by "A. G. F. A.," is a fine chocolate black, and the transparent portions of the film are not stained in the least unless the fixing has not been complete. If, by reason of incomplete fixation, there is any silver left on the film outside of that which constitutes the negative image, the film will be turned to a yellow whose brightness will be determined by the amount of such excess of silver. The color will only prolong the time of printing.

Pfabe's Intensifier is another of the Tolidol people's products—one of the latest.

I. N. COGNARI.

PHOTOGRAPHIC PRINTING PROCESSES.*

BY LOUIS H. HOYT.

CHAPTER VII.

PLATINUM TONING.

As soon as each print has toned far enough in the gold, it is placed in a

sary. The gold bath is decidedly alkaline, while the platinum bath is strongly acid. If the alkali is not entirely removed before placing in the acid bath, the neutralizing of the alkali by the acid will usually cause trouble.

The platinum bath should be pre-



Negative by L. A. Lamb,

Chicago.

THE HISTOLOGIST.

tray of clear water and allowed to remain until the entire batch is toned. When all are finished they should be washed well in two or three additional changes of water. This is quite neces-

sary. The gold bath is decidedly alkaline, while the platinum bath is strongly acid. If the alkali is not entirely removed before placing in the acid bath, the neutralizing of the alkali by the acid will usually cause trouble. The platinum bath should be pre-

pure water. I have tried to tone with certain brands of this salt which are on the market, and could get no results whatever.

About as convenient a way as any for making up the stock solution of platinum, is to dissolve the contents of a fifteen-grain bottle in five ounces of water and then add two and one-half drams of fifty per cent phosphoric acid.

The toning bath is made by using about one dram of the stock solution in eighteen or twenty ounces of water.

Another method is to dissolve the platinum in just plain water for the stock solution. Make the toning bath by adding a dram or two of this stock, to say thirty ounces of water and then put in enough phosphoric acid to give the bath an acid reaction. Saturated solutions of tartaric or citric acid may be used in place of the phosphoric acid in either manner of preparing. I prefer phosphoric, though I know many good printers who use the others and produce the very best results.

It is policy at all times to have a plain platinum solution and also a bottle of acid at hand to correct the bath should it prove to be unevenly balanced.

Manufacturers usually advise rather slow toning in the platinum, but there are very few printers who follow the instructions given in this regard. I suppose there are a hundred prints toned in the platinum inside of two or three minutes, to where there are a dozen toned in more than that time. Personally I like to have them go through this bath in a hurry and I have never seen it demonstrated that longer toning gave any better results. I would advise having the bath at a strength where it will tone inside of four minutes. The bath must be strong in platinum. If one dram does not make it work fast enough, keep on pouring it in until the speed wanted is gained. Economy does not enter into the matter at all. It takes so much platinum to do the work, and whether you tone fast or slow, you have got to use just so much to tone your image.

Different manufacturers will tell you that their papers are rich in silver, and

then go on and say that the image is extra strong and the paper requires very little gold and platinum to tone it. Don't you believe it. It takes just a certain amount of silver to produce good results, and no manufacturer puts in a grain more than is necessary to produce a paper that will sell. The amount of silver in a gross of cabinet size paper is mighty small, and the difference in the amount used in two different brands is so small that it can not be considered.

If the print is properly toned in the gold, the whites clear up rapidly in the platinum. The half-tones take on darker tones and the shadows blacken last. An easy method to judge the toning is to hold the print up to the light and look through it. When the red or brown disappears from the deep shadows, it is toned far enough.

If the print has not been toned far enough in the gold to thoroughly clear the whites, the platinum will make them appear muddy. Slight undertoning in the gold will make the print darken slowly in the platinum and a pure black will be difficult to obtain. The tone will be a brownish black, or with some papers (depending somewhat on age) an olive-tinted black.

If toned too far in the gold, the print will tone quickly in the platinum, usually assuming a bluish black color. In most instances the blue tint can be removed by continued toning, but the tone will be more on the gray or olive, than a pure black.

Experience only can teach just how far to carry in the gold, so that the platinum will give the color wanted.

These papers are not suitable for amateur use, as amateurs usually work. One not accustomed to their manipulation will find it necessary to tone many batches before becoming familiar enough with the process to work with certainty. A majority of the professional photographers who use the paper daily are continually in trouble, and that too after the workings of the paper has been demonstrated to them repeatedly.

After the platinum toning the prints

must be washed through several changes of water (at least two) before placing in the hypo.

The hypo bath should be fresh and should test about 18° by the hydrometer. From ten to fifteen minutes are required to fix the prints.

The final washing must be very thorough. Washing by hand in ten or twelve changes for one-half hour is sufficient. The prints may be mounted directly from the last wash water, by placing on glass and rolling the surplus water out and then proceeding in the usual manner. If the prints are dried before mounting (which is the safest way) it is policy to flatten them in the same manner as in the first wash water before toning, when wetting them for mounting. They will then lie much flatter and are more easily mounted.

To dry the prints flat, the most practical method is to place them between blotters. It will be found necessary to change the blotters once or twice, to dry them thoroughly. A weight must be placed on top of the blotters to keep them perfectly flat.

There are several so-called single toners on the market, which are intended to simplify (?) the toning of these papers. They are of copper and platinum, and if rightly handled pretty fair results may be obtained. When using them it is necessary to have a stock solution of platinum on hand to strengthen the bath occasionally. Whether a print toned in this manner is permanent I do not know, as I never thought enough about the matter to make an effort to learn.

When the Eastman Company first put the Kodak on the market, they used as advertising matter the words, "You press the button and we do the rest." They conferred a favor by so doing, as the public were led to believe that photographing was very simple and became interested in it, so that it is now a popular and instructive amusement. Their statement, however, led to a misunderstanding, in that the beginner jumped to the conclusion that the process is much simpler than what it really is. Many purchase a camera with the



Negative by Dr. Detlefsen,

Chicago.

idea that practically no effort is required on their part. This is wrong. Photographing is a profession, or a trade, depending on the amount of money the worker is realizing from the work. It takes a few years' practice to get the knack of working with average certainty, and even then troubles are always with you.

I once knew an amateur who had a large box in his work room, which bore the word "Failures" on the label. He was somewhat discouraged, as a friend of his never appeared to make any failures. I advised him to change the label and throw the contents of the box where he could not see it and commence anew. Even if you do make failures, do not worry. A box large enough to hold the failures of a professional photographer, in his everyday work, would be of such dimensions that a special store-room would be required, if he saved and labeled them all. The showcase contains the "Successes"; the failures are never on exhibition. The case would not hold them. Do not let want of immediate success discourage you. Keep at it, with your eyes open, and you will get there eventually, feeling all the better for the hard knocks.

MY EXPERIMENTS.

CHAPTER III.

Not long after I got to making fairly good negatives I made an experiment in the treatment of prints. To be quite frank, I do not think that any of my negatives have ever been better than fairly good. Most of them have been portraits — Premo portraits, and made without accessories other than such as were so kind as to find themselves for me in whatever room the exposures happened to be made.

One dry plate foundry must have paid dividends on the plates that were developed into portraits of my wife and which she repudiated on sight, using scissors and other weapons of defacement or effacement, to make the repudiation effective from the date thereof.

If you are beginning to think that you are a pretty swell portrait photographer, just try a few plates on your wife. If she wants a new hat she will probably admit that you are the real thing, but just wait a bit and see if she wants to exhibit any of the prints. There is where you will catch her and get a good line on your work at the same time. If she actually likes the prints she will want you to make her a whole great bunch of them for distribution among her coterie, and you can then provide yourself with an elastic hat to take care of the swelled head that is sure to follow the consciousness of being a good portraitist. If she does not try to coax you to make a few prints anyway, or to have a bromide enlargement made from the negative, you will probably decide that she does not know a good photograph when she sees it, but, as a matter of fact, she does know a good one when she sees it — don't dare to tell her that she doesn't — and you may console yourself for a while by making landscapes. Landscapes are good natured and will not tell you that you are probably the worst excuse for a photographer that ever happened.

All of which has nothing whatever to do with that experiment with the prints.

It was a nasty, foggy, mean, Feb-

ruary day, and I wanted to make several prints. After at least a full hour in the printing-frame in the best light obtainable, all that the paper showed was a delicate *cliché* of the vaguest description. *Cliché*, as used here, is French for a bum print.

The sensitive film of a dry plate is an emulsion of haloid silver salts. The sensitive film of printing-out paper is also a haloid silver emulsion. If the dry-plate emulsion yields to the action of the developer, why should the p. o. p. emulsion not do the same? This is how I reasoned.

I was using pyro then (there was not any tolidol yet) and while the idea was still hot in my head, I mixed up a mess of it and popped an unripe print into it. If you are curious to know just what I got try it once — it is a lovely experiment and you will get sudden results. The fact that the paper turned pumpkin pie color at once and all over, without reference to the faint primary image, suggested overexposure, so I began adding bromide solution and testing with strips cut from one of the six faint prints that I had at hand. This did not help very much, so I tried soaking a print in bromide before using the developer on it and then I had fair success.

When the print is first soaked in bromide for a few minutes, all of the silver in the paper is converted into bromide of silver, excepting only such of it as has already been reduced by light to a visible image. When the paper is then placed in the developer the latter begins its reducing action on the more or less faintly visible image and adds to it by accretions from the adjacent bromide of silver in the film. In a short while the print will be fully developed and requires only to be fixed, for the ordinary toning baths of gold or platinum do not appear to have any effect on them.

I am indebted to one of the English photographic journals for a tip that short exposures on printing-out papers can be developed so that they can be toned afterwards; and the secret is to use a coal tar developer without any



Negative by Frank Snyder,

Chicago.

PIETY BETWEEN LABOR.

alkali and to make sure that it is slightly acid.

Some writers direct that prints be immersed in an acid developer without any preliminary washing, urging as a reason that the further development of the print is due to the reduction of free nitrate of silver in the film, such reduction taking place first of all and preferably at the points where the visible image shows the light's action, and not at all at any other point until the normal and desirable development is complete.

Other writers direct a thorough preliminary washing in plain water, and still others recommend that the prints be soaked in a solution of chloride of sodium (common table salt) and water and again rinsed in clear water before essaying the development. I have tried all the methods that I have read or heard about, and find that the prints that are first soaked in salt water are the only ones whose high lights are presentable.

If any of you care to try the experiment you will find that the following method gives results that are reasonably satisfactory. Print until you get

whatever detail you require in the finished picture — about one minute's exposure in sunlight will give you this — and then soak the print in a quart of water in which a teaspoonful of salt has been dissolved. Two minutes' soaking will be sufficient. Then rinse it in two or three changes of clear water and develop it in

Water	4 ounces
Tolidol	20 grains
Sod. sulphite.....	5 grains
Citric acid.....	10 grains

This bath will bring the print out with full vigor, and any of the ordinary toning baths can be used successfully with it.

Oxalate of potassium and oxalic acid may be substituted for the sulphite of sodium and citric acid in above formula, if desired, and the print will then tone in a weak solution of chloroplatinite of potassium, phosphoric acid and water (say one grain of the platinum salt, twenty drops of the acid and a pint of water) without preliminary gold toning. In this latter case the prints need not be washed before toning, but they must always be well washed before gold toning.

RALPH MARTIN.



Negative by Frank Snyder,

Chicago.

KNITTING.

BEGINNERS' TROUBLES.

CHAPTER VII.

DARK BORDERS FOR ALBUM LEAVES.

The editor has forwarded to me a letter that he received inquiring for a method of matting negatives to give white and black lines around the picture. Such lines are often seen in half-tone engravings, but I have never seen them in photographs, and I doubt if the effect would be a pleasing one. Another reader of THE PHOTO-BEACON wants to know how to get dark borders on album leaves, with a narrow white mat between the border and picture. I once made such an album, and though it required more work and a little more care than it would by the method described last month, I felt well repaid for the additional trouble.

These questions can be answered in one article, and as it naturally follows the one in the June issue I will give it precedence and ask others who have written to "patiently wait and murmur not."

The album in question was made from 5 by 7 negatives. The printing was done on Velox paper cut to the exact size ($6\frac{1}{2}$ by 9) before it was printed. Each picture was $4\frac{1}{2}$ by $6\frac{1}{2}$, so it will be seen that the mask covered a quarter of an inch of the negative all around the edges. The mask was made of black paper, and two lines drawn with white ink along one side and end, showing the exact position the paper should occupy in printing. I think that orange paper with black lines would answer the purpose just as well, but white ink can be obtained at any store where artists' materials are kept. Next I secured a piece of pen-and-ink drawing paper (I believe that bristol-board is the same thing) and cut it to fit one of my printing frames, both of which were 8 by 10. In the center of this I mounted a 5 by 7 piece of black paper; and then drew two lines with black ink to show where the printing paper should be placed to make this black mask occupy the same relative position that the negative did when printing. To make this paper translucent I rubbed it with a

mixture of equal parts of paraffin and vaseline, but it would probably print quite fast enough for most people without that.

I printed by artificial light, using one frame for the negatives and another for the drawing-paper mask. First I would print the picture. Had the paper been developed then it would have shown a white border an inch wide at both sides and one end. At the other end it would have been an inch and a half wide. But before developing I placed the paper in the other frame, guided by the black lines to secure the right position. When it was again exposed the black paper covered the part already printed and a quarter of an inch of the white border all around it, while the light coming through the translucent drawing-paper printed all the remainder of the paper.

The borders of this album were of a universal black, but if one were so disposed they might be varied in tone by increasing or diminishing the exposure. A slight underexposure will give a dark gray tone. If the time is still further reduced, the shade of gray will be lighter. Overexpose slightly, and the tone becomes greenish black; while a very great overexposure will give brown or green tones.

If only black-and-white lines are wanted it will be quite impossible to cut strips of black paper narrow enough. In that case the lines may be drawn on the drawing-paper mat with a ruling-pen and black ink. This mat, you must remember, is a negative, so where a white line is desired on the print a black one must be made on the mat. If a narrow white line is wanted next to the print, the black paper mask on this mat must be just large enough to cover the picture and this line. That will require a good deal of care in adjusting the paper exactly to the guide lines each time, but I am satisfied that it can be done if one is careful. If any of my readers fail, let them write to me and I will send an example for publication in THE PHOTO-BEACON to demonstrate its possibility.

Another reader wants to know how to

dry unmounted prints so they will not curl. Album leaves are unmounted prints, so this is probably the place for the answer.

Bromide paper, which of course includes the "gas-light" developing papers, and gelatin print-out paper of the Solio type, may be soaked for a few minutes in a bath composed of one part glycerin to five parts water. They will then dry flat and remain flexible. This will not work with collodion paper, such as Aristo-Platino, however. If you try it you will simply get oily-faced prints that will curl as bad as ever. Some collodion papers can be dried between blotters, but I believe other brands are inclined to stick to the blotters. It is a very simple matter to straighten the prints on any kind of paper, however. If flat prints is all that is wanted, it is not really worth while to give them a bath in the glycerin and water.

Prints that are dried on a flat surface will invariably curl up at the corners. To straighten them out lay one face down on the table, place a ruler or other flat object with a straight edge on the top of it, and while this is held down

quite firmly with one hand, with the other take the print by one corner and draw it up across the edge of the ruler. This will curve one corner in the other way. Repeat the operation with the other three corners and then throw the print face up and it will immediately flatten out.

PINHOLES IN NEGATIVES.

Some time ago I received a negative from a correspondent who stated that he was greatly troubled with pinholes. The negative reached me in something less than a thousand pieces, but I found pinholes on most of the pieces. They had the appearance of those caused by particles of dust on the film during exposure, but my correspondent assured me that he was very careful to dust out his holders and dust his plates. Without knowing the particulars more fully I can suggest no remedy but *more care*. I get pinholes myself sometimes, but when I see them on one negative I am more careful for a while and they do not trouble me till I get careless again or load my holders in a hurry.

J. EDGAR ROSS,
Healdsburg, California.



Negative by R. A. Blackburn.

THE KONIGSSE.

Chicago.

DEVELOPMENT.*

CHAPTER IV.

PREPARATIONS.

I presume that you have provided yourself with a "darkroom." That is a room in which the only source of light is covered up with red, orange or yellow glass or fabric. Also you know that (until it is "fixed") the plate must not be exposed to any other light besides this. A beginner usually adds greatly to his difficulties by providing a miserably small darkroom lamp or candle, which is little better than darkness. As regards apparatus you will require at least two dishes or trays the size of your plate (select deep ones), one for development and the other for fixing. Also a light tray or cover of a larger size to cover up the developing dish from light.

Make up a "fixing solution" by dissolving 4 ounces of hyposulphite of soda in 20 ounces of warm water. This is called hypo for short. You will also want at least one graduate, a 4-ounce one is perhaps the most convenient.

THE DEVELOPER.

It may seem curious that I am not going to give the formula for some special developer, but knowing, as I do, that there is no particular merit in any one mixture, I advise that you use the formula given by the platemaker, or the one to which you are accustomed. It does not matter much whether you use pyro or one of the newer developers, there is only one developer which it is well to avoid and that is hydroquinone. This is because its factor is so short that it is apt to lead to over contrast. Pyro is more apt to stain the fingers than the others, but it is cheaper, and at least equal in merit.

WHEN TO STOP DEVELOPMENT.

About 1893 I found, after many trials to establish the fact, that any change of temperature (within limits) or of amount of alkali, and also strength of developer, with most developers, which lessened or increased the time required for a certain amount of contrast in the

negative, also altered the "time of appearance" in exactly the same ratio.

The "time of appearance" is the time elapsing between pouring on the developer and the first appearance on the plate of any trace of the image.

My plan, therefore, is to develop the plate for a certain multiple of the time of appearance, and a standard amount of contrast will always be secured, even with considerable changes of temperature or alkali. This multiple is called the multiplying factor. With most developers the multiplying factor remains the same for different strengths of developer, but pyro is an important exception to this.

It really amounts to making a test of the activity of the developer and regulating the time of development accordingly.

PROCEDURE.

You have decided what developer to use and have it ready mixed (according to instructions given by the platemaker) in the graduate. Place the plate, face upward, in the dish, take out



Negative by R. C. McLean,

Chicago.

SUNDAY AFTERNOON.

your watch, and the moment the second hand touches an even minute, pour on and rock the dish, watch very carefully the creamy surface of the plate and the moment any trace of the image (the high lights come first) begins to appear, note the time. The time elapsing between pouring on and the first appearance is the time of appearance, and this, multiplied by the multiplying factor, gives the total time for development. When you have noted the appearance of the image, cover up the dish from the darkroom light, as it need not be looked at again until the calculated time is up. The dish should be rocked occasionally. It is usually convenient to count seconds when you pour on, a half-second pendulum (as used in my exposure meter) being a convenient timekeeper, as the beats can be counted by touch without looking at it.

When the time has elapsed, pour the developer out of your dish or tray and wash the plate (still in the dish) with water from a tap or jug. There is no need for more than a rapid swirl. Then place in the hypo solution in the dish set apart for that, the plate being still face upward. It must remain in this until all the milky white has disappeared and must be left in about as long again. The plate must then be placed in running water for at least an hour to wash. It is best to be in an upright position or face downward while washing, but in the latter case the plate must of course not touch the bottom of the washing tank or vessel.

When dry the negative is ready for printing from.

Example of use of the multiplying factor:

The Cramer Pyro soda developer of minimum strength (about two grains pyro to ounce) is used and the approximate factor for this is 12. The image appears in 30 seconds and it must therefore be developed for 6 minutes. It must be clearly understood that when I quote a multiplying factor for a particular developer I give it as a guide for the first trial, and it is quite likely that the factor may require to be altered to suit individual needs, but when *once*

fixed upon it need not again be altered. If the suggested factor gives too much contrast in the print, use a shorter factor in future; if the print is too flat, use a longer factor next time. In this system the exposure will decide the density of the negative, and the development the contrast between the tones. Do not attempt to regulate the density of the negative by the development.

SUGGESTED MULTIPLYING FACTORS.

			Factors.
Pyro soda, 1 grain pyro, no bromide	.....		18
" 2 grains	" " "		12
" 3	" " "		10
" 4	" " "		8
" 5	" " "		6½
	Pyro.	Bromide.	
" 1 grain	.....	¼ grain	9
" 2 grains	.....	½ "	5
" 3	.....	¾ "	4½
" 4	.....	1 "	4
" 5	.....	2 grains	3¼
Aduroil	.....		5
Kachin	.....		10
Hydroquinone	.....		5
Eikonogen	.....		9
Metol	.....		30
Glycin	.....		7
Amidol (2 grains)	.....		18
Rodinal	.....		40
Ortol	.....		10
Pyrocatechin	.....		10
Imogen sulphite	.....		6

In a combination developer the factor is decided by the proportion or its constituents. Thus, if it contains two parts of hydroquinone and one part of metol, three parts in all, you put down the factor for each of the parts and divide by three, thus:

$$\frac{5 + 5 + 30}{3} = 13\frac{1}{3}.$$

It will be noticed that the factors for pyro vary with the strength in grains to the ounce. Amidol is the only other developer the parts of which vary with the strength. With most developers the factor remains the same with different strengths. With pyro, too, the factor is very different when bromide is used to what it is without bromide.

Do not alter the parts for over or under exposure, and if your negatives are either too dense or too thin (the contrast being about right) remedy the matter next time in the exposure, not in development. Amount of alkali in the

developer does not require an alteration of the factor.

As a guide to the factors for different platemakers' pyro developers I give the grains pyro to the ounce for each; the factors can be found in the "no bromide" list: Seed A. B. C., 5; Seed pyro, $2\frac{1}{2}$; Stanley, 3; Cramer, maximum strength 5, minimum strength 2; Hammer, $2\frac{1}{4}$; Eastman, 2; New American, 3; New York, 2; Wuestner Eagle, 1; Carbutt, maximum strength

tendency to employ formulæ of continental origin which are expressed in such measures make the conversion of formulæ from one system to another a question of considerable practical importance. Methods of conversion that have been recommended from time to time might lead the uninitiated to suppose that it is a very complicated and difficult matter, whereas it is really quite easy. Such methods seem to arise mainly from a want of any real under-



Negative by Sam G. Wolfe,

A GENEVA HOME.

Chicago.

$2\frac{1}{2}$, minimum strength $1\frac{1}{2}$ (this developer contains bromide).

Pyro ammonia development can not be timed by my method on account of the volatile nature of the alkali.

ALFRED WATKINS.

THE CONVERSION OF ENGLISH AND METRIC FORMULÆ.

The increasing tendency to employ metric weights and measures for photographic purposes and a corresponding

standing of the two systems and their relation to one another.

If we have a formulæ expressed in grammes and cubic centimeters in a liter (1,000 cc.) and we want to express it in grains per fluid ounce, we take advantage of the fact that grammes or cc. per liter are *parts per thousand*, while grains per ounce are *parts per 437½*, or in round figures 440. It follows that to convert grammes (or cc.) per liter into grains per ounce we multiply by 44 and

divide by 100, or expressing it decimally, we multiply by 0.44. Using the round number instead of the exact figure introduces an error of about one-half per cent, which is quite negligible for most purposes, but if we want to be

It seems desirable to set out both the accurate and approximate way of making the conversion, but for all ordinary practical purposes the following is sufficient:

Grammes (or cc.) per liter (1,000



Negative by Frank Snyder,

Chicago.

THISTLELAND.

quite accurate we must multiply by $437\frac{1}{2}$ and divide by 1,000, or multiply by 0.4375.

To convert grains per ounce into grammes or cc. per liter we reverse the process, and multiply by 100 and divide by 44 (or multiply by 1,000 and divide by $437\frac{1}{2}$, if we need to be very exact). Decimally we *divide* by 0.44 or 0.4375, as the case may be.

cc.) into grains per ounce — Multiply by 44 and divide by 100.

Grains per ounce into grammes (or cc.) per liter — Multiply by 100 and divide by 44.

The conversion from metric measures to English can be made more simply if we decide to make up 16 oz., 8 oz., or 4 oz. of solution. We have got into the habit of making up 10 oz. or 20 oz. of

solution because these quantities are convenient when we are dealing with formulæ expressed in percentages, but it is obvious that a 10-oz. measure will measure off 8 oz. and a 20-oz. measure will measure off 16 oz. The advantage lies in the fact that 16 oz., solid or fluid, contains 7,000 grains, and, therefore, grains in 16 oz. are *parts in 7,000*. It follows that to convert grammes per liter (1,000 cc.) into grains in 16 oz. we only need to *multiply by 7*. Take any ordinary formula, such as that for ortol solution:

Water, 1,000 cc., 16 ounces.

Ortol, 15 grammes $\times 7 = 105$ grains.

Potassium metabisulphite, 7.5 grammes $\times 7 = 52\frac{1}{2}$ grains.

Obviously, if we only wish to make up 8 oz. or 4 oz. of solution, we need only take one-half or one-quarter of the above quantities.

This use of 16 oz. as the quantity to be made up is, of course, not new, but it seems to have been too much neglected. It may be commended to the attention of all those who want to try continental formulæ, but to make them up with English weights and measures.

But how are we to deal with formulæ that are not expressed in grammes per litre or grains per ounce? Clearly if they are expressed in grammes in 500 cc. all we need do is to multiply all the figures by 2, and we shall then have the quantities in 1,000 cc., and can proceed as above. Similarly we can, as a rule, easily reduce an English formulæ to grains per ounce or grains in sixteen ounces, and proceed by one of the above methods.

Even in the least simple cases the matter is not very formidable, though it may involve a little more arithmetic. Here is all that we need:

To convert grammes into grains *multiply by 15.43*.

To convert cc. into fluid ounces *divide by 28.35*.

To convert grains into grammes *divide by 15.43*.

To convert fluid ounces into cc. *multiply by 28.35*.

Any formula in either the metric or English system can be dealt with in this

way. If we take $15\frac{1}{2}$ instead of 15.43 and $28\frac{1}{2}$ instead of 28.35 we introduce an error of less than one-half per cent in either case, and this error is quite negligible. — *Photography*.

C. H. BOTHAMLEY, F.I.C., F.C.S.

A NEW CHICAGO PHOTOGRAPHIC CLUB—THE PHOTO-FELLOWS.

PREAMBLE.

Being associated together as "Photo-Fellows" in all that the name implies, and believing that honesty and sincerity of purpose are alone sufficient for the guidance of gentlemen, we purposely ignore all precedent and establish this declaration of principles for the benefit of any who may hereafter be selected to affiliate with us.

1. Fellowship can be acquired only by unanimous selection.

2. To become a Fellow costs \$20; to remain one costs \$30 each year.

3. Our affairs shall be in the hands of a governing board of five, elected for one year. The decisions of the board are without appeal.

4. Each Fellow is required to prove his ability when requested by the governors.

W. F. JAMES,
F. K. LAWRENCE,
A. K. BOURSALT,
DR. CHAS. G. FULLER,
GEO. H. HAZLITT.

Governors for 1901.

Among our members are Henry G. Mohr, J. F. Palmer, H. G. Brinsley, R. J. Bassett, H. G. Maratta, W. L. Wells, J. R. Driver, E. L. Bourke, E. A. Hill and Edgar Cameron.

PHOTOGRAPHERS' ASSOCIATION OF THE PACIFIC NORTHWEST.

The second convention of the above association will be held in Portland, Oregon, on October 3, 4 and 5 of this year. Full particulars of local competitions and those open to all professional photographers in the country will be obtained on application to the secretary, Charles Butterworth, 782 Kelly street, Portland, Oregon.

A STRANGE COINCIDENCE.

Editor of THE PHOTO-BEACON:

MY DEAR SIR,—For several weeks I have felt a strong desire to write to you concerning a peculiar coincidence which struck me with remarkable force, naturally, and may seem interesting to you as one of those unexplainable

six years of age. As is often the case with aged Yankee women, she had for many years declined to have her picture taken by a regular photographer, and I had not at that time acquired sufficient skill as an amateur to attempt portrait work. That she left no photograph was a source of regret to me



Negative by Ed L. V. Bourke,

Chicago.

AS NIGHT COMES ON.

events which startle us at times. In order to make the matter fully understood it will be necessary for me to introduce considerable detail, going back a little into particulars.

On January 15, 1900, my mother, Clarissa D. White, died quite suddenly, and to us somewhat unexpectedly, as a result of an accident. She was seventy-

and my family, and we have spoken of it frequently since her death.

When I opened the April PHOTO-BEACON and saw the frontispiece, "In the Gloaming," I nearly fainted and then burst into tears. That is a perfectly correct picture of my mother in every particular, and every one who knew her agrees with me. I do not

mean *it resembles her*. I mean it is exact in every particular, so exact as to admit of no criticism. My delight you can imagine, at thus having her picture for preservation.

Yours respectfully,
LEONARD D. WHITE, M.D.,
Uxbridge, Massachusetts.

June 1, 1901.

PHOTOGRAPHIC COMPETITION — \$610 IN CASH.

The trade agents for Rotograph Paper announce a competition for prints made on their paper, the prizes varying from \$200 to \$5. Full particulars can be had on application to the agents, whose advertisement will be found in this issue.

POSTAL CAMERA CLUB.

The conductor of the above is now L. L. Potter, Cairo, Illinois. There are still a few vacancies, and those interested should write Mr. Potter. We have just had a look through the club album and can assure our readers they will find membership in this club both profitable and pleasant.

EDITORIAL TABLE.

THE PHOTO MINIATURE PUBLISHERS, Tennant & Ward, 287 Fourth avenue, New York, have just got out a poster which is a good thing.

THE "AMATEUR MULTIPLIER," advertised by Gilbert J. Miller in this issue, is a very simple method of securing a number of small pictures on one plate.

THE MANHATTAN LENS EXCHANGE, 503 Fifth avenue, New York, have just issued No. 55 of their special mail order catalog. A postal brings a copy.

FROM CHARLES R. PANCOAST, 1213 Filbert street, Philadelphia, Pennsylvania, we have received a copy of "Note Book for Photographic Exposures," which is a convenient form of keeping a record.

FROM BURKE & JAMES, 118-132 West Jackson blvd., Chicago, we have received a copy

of their latest catalogue, which in its 224 pages describes all the new inventions and latest things on the photographic market. It can be had free on application.

THE A. M. COLLINS MANUFACTURING COMPANY, 527 Arch street, Philadelphia, has just issued a "Price List of Photographic Cards for the Amateur." It is a good reference book to have beside one and copy can be had for the asking.

FROM ANDREW J. LLOYD & Co., 323 Washington street, Boston, Massachusetts, we have received a copy of the 1901 edition of their Cyclopædia. It is all that was claimed for it in the preliminary notice that we quoted in the May issue and is well worth the 20 cents asked to pay the mailing charges.

FROM DAWBARN & WARD, London, we have received a copy of "Photography for Profit," being a volume devoted to the money-making possibilities of photography, chiefly by selling acceptable pictures to publishers. The book can be secured through Tennant & Ward, 287 Fourth avenue, New York. Price, 50 cents.

THE PHOTO-BEACON.

AN ILLUSTRATED PHOTOGRAPHIC JOURNAL,
Published Monthly.

Yearly subscription, \$1.00, in advance; single copies, 10 cents; foreign subscription, \$1.36.

All remittances should be sent by postoffice money order, draft or registered letter to the order of THE PHOTO-BEACON COMPANY.

Unless otherwise directed, subscriptions will commence with the number issued during the month of receipt of subscription order.

Accepted literary articles will be paid for upon publication.

To insure insertion in any particular number, copy for advertisements must be received not later than the 20th of the month preceding.

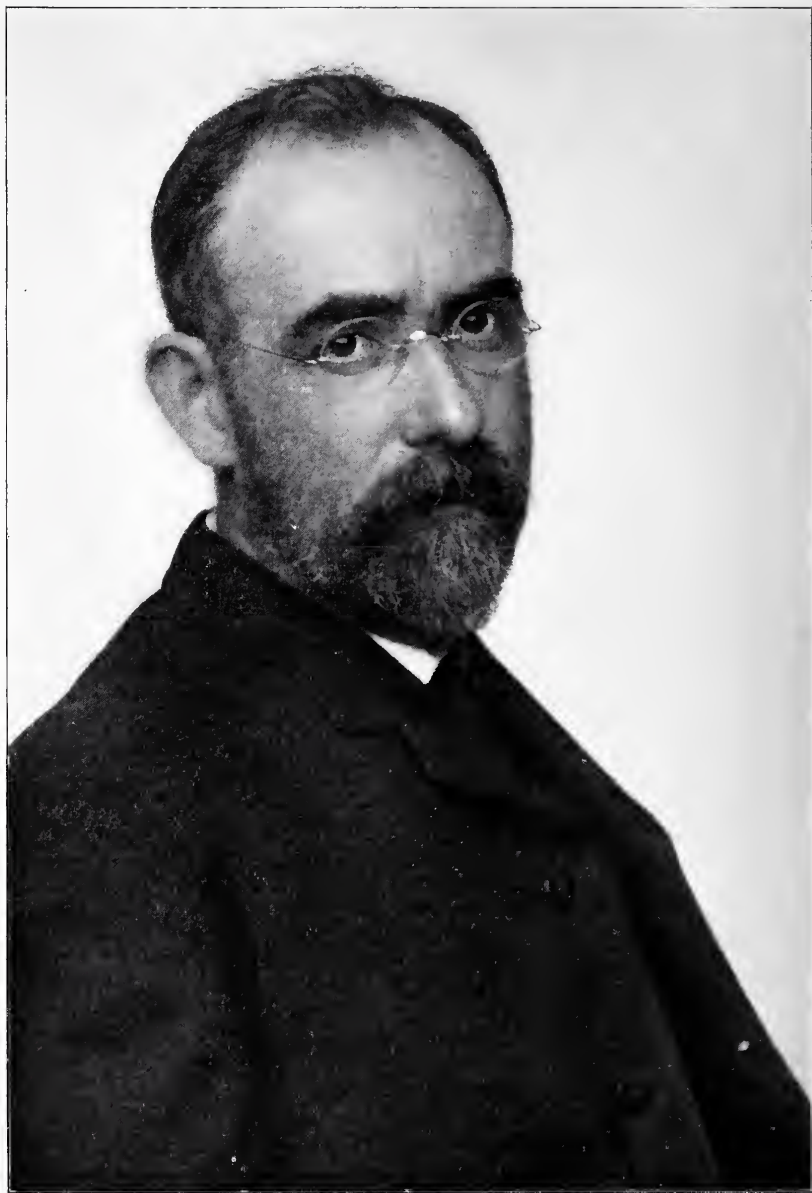
All communications relating to THE PHOTO-BEACON should be addressed to

THE PHOTO-BEACON COMPANY,

SECURITY BUILDING,

CHICAGO, ILLINOIS.

Eastern Office: 611 to 621 Broadway, New York.



J. M. Appleton,

New York.

*Yours sincerely
F. Dundas Todd.*

THE PHOTO-BEACON.

EDITED BY F. DUNDAS TODD.

Published by the Photo-Beacon Co., 409 Security Building, Chicago.
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VOL. XIII.

AUGUST, 1901.

No. 8.

THE MAN BEHIND THE GUN.

This is not a flagrant case of vanity, but an effort to call a bluff. Whenever it gets up to me, I generally try to go the other fellow one better, and for many years I have been worrying my brain how to get the best of a large number of photographers. Whenever I attend a convention I am in the habit of criticizing very freely the pictures on the walls, sometimes not to the comfort of the exhibitors, but I generally find that the photographers wriggle out of the corner in which I attempt to pin them by saying that if they had better subjects they could make better pictures. I have always denied this absolutely, but I found that all I could say was unconvincing to the individuals, and they departed seemingly well satisfied with themselves, while I felt disgusted. I was certain I was right, but could not convince the other fellow, and so I pondered the proposition in order to find an argument for my side of the question that would simply be unanswerable.

It recently dawned on me that the only convincing method would be to present the same individual to a number of really good photographers and by the variety of pictures that would be produced with these conditions, that I would be able to demonstrate beyond all cavil that the man behind the camera counted far more than the subject in front of it. About two months ago I determined to put the matter to the test. It so happened I had to go east on a business tour and I decided to call

on a dozen different photographers, explaining to them what I wanted to be at, and endeavored to interest them in my little scheme. Seeing that I had to call on them in any case, I offered myself as the subject and I need hardly inform my readers that I abjectly apologized for the face and figure they had to experiment on. I explained to them that they would readily understand I was not in the least bit double-faced. If I were I would have brought the other one with me. I found them more than charitable. They realized the limitations and agreed to exert themselves on the poor subject in front of the lens, easing their consciences, however, by explaining to me very decidedly wherein my features varied from the classical standard. I was never very much stuck on my personal appearance, but what shreds of vanity did happen to linger about me have all vanished since I posed for a dozen eminent and truthful photographers. I feel as if I had suffered martyrdom, but consoled myself with the idea that it was undergone in a good cause. After what these gentlemen said to me, my readers may rest satisfied that what they think of my personal appearance will not worry me any.

In introducing the subject to the various photographers. I carefully explained that I was a customer who did not know what he wanted, but was perfectly willing to take what they gave him. I was absolutely at their disposal, would obey all orders and give them as much time as they wanted. I carefully

refrained from telling any one what any other had attempted to do, so that the conditions would be as uniform as possible.

The results of this experiment I now hasten to place before the readers of THE PHOTO-BEACON, believing that they will find them to be as interesting as anything they have ever come in contact with in their photographic career. They certainly are so to me. I did expect variety, but I never dreamt that my case would be so strongly proven as has been done. I consider every one of the pictures a beautiful specimen of photographic art, but I am simply astounded at the extraordinary variety of the expressions and effects. I feel as if there were as many different Todds as there are photographers. As a matter of fact, I am convinced that in each picture there is nine-tenths of the photographer and one-tenth of me. The photographers in Chicago, Rochester and New York all knew me from personal contact in the past, of course some more than others, as did also Armstrong, of Boston. The others had never set eyes on me until I stepped into their studio, so that we have here both the ideal conditions of making the best portrait of a man, that is, prior acquaintanceship with him, and also the very worst, namely, unfamiliarity with even his personal appearance. On the other hand, I feel that the men who had met me in a casual way at conventions were even more handicapped than those who had never seen me, as they had formed an estimate of me from some passing phase that was not a predominant one. This was brought out noticeably in a remark made to me by one photographer who was very much exercised over my expression. After making many attempts to get what he wanted, I took the liberty of asking him what he was aiming at, and he replied, "I want you to look as I know you, but I can not get the expression." Being anxious to help him, I requested to know what he wanted to be at, and he replied that to him I was always a jolly, good fellow, full of stories and nonsense, never worrying very much, and that,

do as he could, he could not get me to look as I ought. I helped him as much as possible, but, on developing the plates, the expression was practically a caricature, and then it dawned upon him that he had better try for something else.

Two other photographers opened up to me new and great possibilities in portrait photography. For seven years Pirie MacDonald has known me well. From the very start we got into grips with each other, as each of us hold very decided opinions on various photographic subjects, and whether in committees or on the floor of the convention, we have crossed swords again and again. In fact, it may be said that we never met but we had a fight. When, therefore, I placed myself in front of Mr. MacDonald's lens I wondered what he would do with me. In fact, I was so interested that I at once asked him what he was going to aim for. With one of his inimitable smiles and gestures, he said, "Todd, my boy, to almost every photographer in this country you are Todd the fighter, but you are not that to me. Many a scrap we have had together, but I think I have always seen below the skin and you have never been Todd the fighter to me; you are Todd the dreamer, and it is Todd the dreamer I mean to get." And then came a revelation of a new phase of MacDonald's character that I never suspected. He knew what he wanted to be at and proceeded in the most marvelous way to work upon my mind to develop the expression he wanted, and for the first time in my life I began to realize what hypnotism meant, for, from the moment he uttered that sentence, until the sitting was finished, I felt MacDonald's mind dominating mine, causing me to assume the expression he desired. The attitude is not the one that is assumed in business hours, but is the favorite one at home when I am apt to lie back in my chair and think over my past experiences and impressions. Whether MacDonald's interpretation of me be right or wrong, he has, unquestionably, attained his aim, and has thus pointed out a higher possibility of photographic

portraiture, the rendering of the predominant note in a man, the expression of a thought.

In Chicago, Mr. Dyer is a man that I meet often. In many respects we are congenial spirits and I frequently dis-

replied that his aim was to indicate mentality, clear mental insight, with a little touch of the dreamer. So here we have at least two of the photographers I visited trying to express something more than the mere features of a



Allen Cook,

Philadelphia.

cuss with him such notions as hit me from time to time, because I have a high opinion of his mental acumen and insight. Like the others, I had no suggestions to make to him, but, after he was satisfied with his work, I took the liberty of asking if he had any strong idea that he wished to carry out. He

subject. I only wish that this idea had struck me sooner so that I could have asked the others what they were working for.

This experiment has been to me perhaps the most interesting one in all my photographic career. It has shown me a wider horizon in the field of photo-

graphic portraiture, and I think it will repay every one of my readers to go very carefully over the reproductions and compare one with another, and more especially, those of Mr. MacDonald and Mr. Dyer, who, as they now know, had a definite end in view.

F. DUNDAS TODD.

PICTORIAL COMPETITION NO. 38.

A very interesting series of pictures was sent in to take part in the domestic animals competition. Many of them showed great artistic merit and it took the judges some little time to arrange the prize list. The following are the awards:

First prize — James E. Taggart, Delaware, Ohio.

Second prize — Sara W. Holm, 617 Ohio street, Sedalia, Missouri.

Third prize — J. V. Toland, 546 Florida street, Vallejo, California.

PARTICULARS OF PRIZE PICTURES.

First prize, taken in March, on Stanley No. 50 plate. Print made on Auto-type Company's Sepia Carbon.

Second prize, made in November, stop f 8, exposure 1-25 second, on Stanley plate. Printed on Willis & Clement's platinotype.

Third prize was made in July, 1900, 3 P.M., in well-lighted room, strong sunshine outside, on Forbes plate. Stop U. S. 4, exposure one second. Printed on Eastman's W. D. platinum paper.

FUTURE COMPETITIONS.

Competition No. 40 — Branch of a tree with leaves. Closes August 31.

Competition No. 41 — "At Home" Portraiture, that is, portraits not made in a studio. Closes September 30.

Competition No. 42 — Snap-shot pictures. Closes October 31.

Competition No. 43 — Landscapes. Closes November 30.

Competition No. 44 — Flower pictures. Closes December 31.

RULES.

1. There is no restriction as to the number of pictures to be sent in. On the print there should be written the title and sender's name and address,

but nothing else. Accompanying, a letter or postcard should be sent us, giving full particulars of date, light, plate, stop and exposure given; also the printing process.

2. Mark outside of package with number of competition. Ordinary letter rate must be paid where descriptive matter accompany prints.

3. Prints are not returnable.

PRIZES.

First — Books to the value of \$5.

Second — Books to the value of \$2.50.

Third — Books to the value of \$1.

Any books, on any subject, or if preferred, any article we can buy in Chicago.

POLYCHROME PAPER.

We recently had a visit from Mr. N. C. Hawks, of the California Camera Company, San Francisco, California, manufacturers of Polychrome paper, who showed us some beautiful specimens of work by this process.

WEDDING BELLS.

On June 10, Mr. S. H. Mora, of the Eastman Kodak Company, was married to Miss Margaret Agnes Griffin, Rochester, New York. We wish them long life and happiness.

THE BANKS OF THE HUDSON.

Although I have been in New York a dozen times, I never until this spring had the pleasure of seeing the Hudson River. When I started East I had it on my program, and so on my homeward journey I took the West Shore Railroad train leaving New York in the early afternoon, and then, until darkness came, I feasted my eyes on the beauties of the Hudson River. The foliage was in the exquisitely green condition so characteristic of spring, the flowers were coming into blossom, and altogether it was a veritable feast. I can recommend any of my readers who are starting west from New York city to follow my example and they will not be sorry. I found traveling by this route to be exceedingly comfortable.

F. DUNDAS TODD.

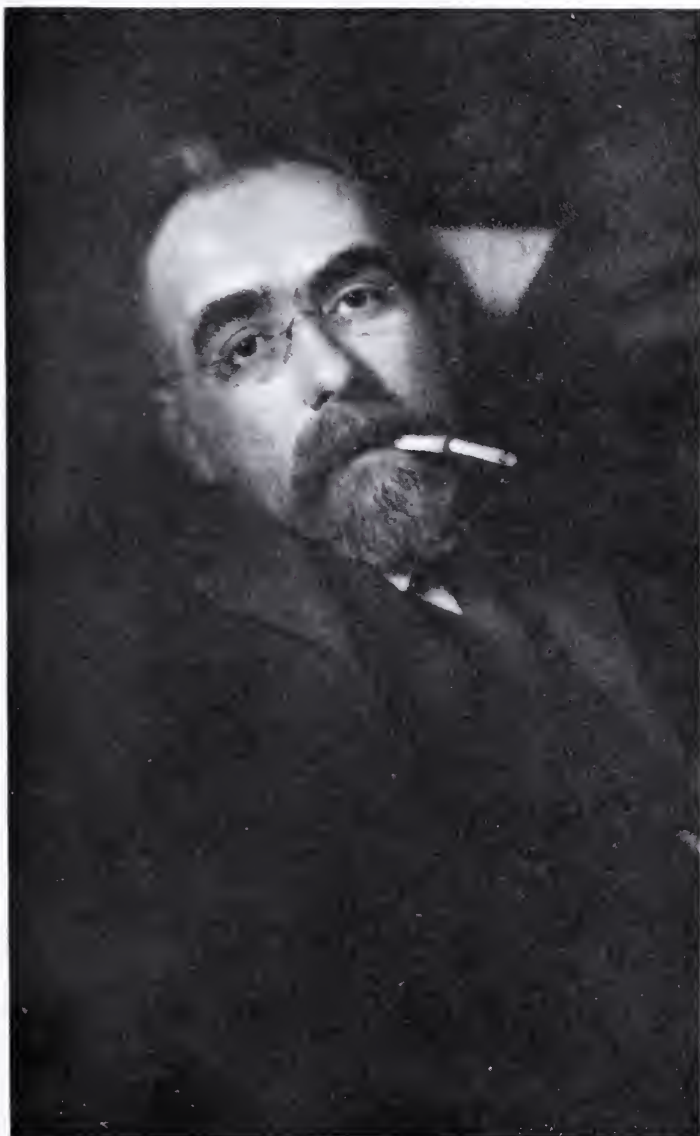
VOIGTLANDER AND I.*

CHAPTER VII.

BEING THE REMINISCENCES OF JAMES F. RYDER.

Through the vapory combination of tankard and cigars Mr. Graves found

mother, who was mother and chum. He could always go to her for counsel, advice and sympathy. She seemed to understand the boy-nature better than his father did. She thought it better



Pirie MacDonald,

New York.

inspiration for spinning and weaving. A reminiscent wave swept over him. He delighted in his boyhood and his

to lead his mind by gentleness than to obstruct it without giving a reason or explanation.

"Mother was a religious woman," he

*Copyright, 1900, by James F. Ryder.

said, "and took me to meeting with her. Preaching was held in a log school-house up in the mountains among the trees, where it was very pleasant. Some folks came five or six miles and there were always a number of horses tied to the trees. I got acquainted with some boys, and some of them carried in their pockets cookies to eat at intermission, for we held two services. Mother put caraway seeds in mine and the boys liked them better than their own, and I traded with them. Mother liked to hold my hand in hers, even in meeting, and sometimes it would get so sweaty she would wipe it upon her handkerchief, and days when it was real warm I would sometimes fall asleep and she would wipe my forehead. I didn't like to have my hand held all the time, but I didn't want to tell her so, and since she died I'm glad I didn't.

"Mother would have liked me to be a preacher, but I really couldn't do it. I used to try to practice after I had gone to bed at night, but the words wouldn't come to me, and I would fall asleep.

"After her death I grew up to be a sort of careless fellow, but I remember always how good she was; she told me I must always say my prayers, and I always do. I have thought it is not rigidly practiced by tavern-keepers, but I do my share honestly. I know where she has gone and I count on hunting her up when I go 'over there.'"

He said "a good mother was the best thing that could happen to a man."

"I can generally tell whether a man is 'O.K.' or 'N.G.'," said Mr. Graves. "I'd rather think a man was a good fellow or had good in him than be in doubt about it. Prejudice against people or things should not be encouraged; there's a good deal in breaking it down. A man that goes around with a scowl on his face and a chip on his shoulder is generally an unhappy cuss. He's quarreling with the world without just knowing it. I learned a lesson when a boy about overcoming prejudice that I have never forgotten. Now a man can learn from dumb beasts — mighty good lessons. I'd rather see the wag of a

dog's tail than the glitter of his teeth. There's as much difference in men as there is in dogs. But I was saying what I learned about overcoming prejudice. Now you would hardly expect a cow to teach a man — but listen.

"Father had a valuable cow that had been ailing for some time and he was quite concerned about her. Mother said, one day, 'a good, big dose of soft soap is what she wants.' Father laughed a sort of incredulous laugh that had a tinge of pity in it for mother's ignorance, and said, 'Oh, pshaw! A cow take a dose of soft soap! You never could fool "old Moll" — she wouldn't touch it.'

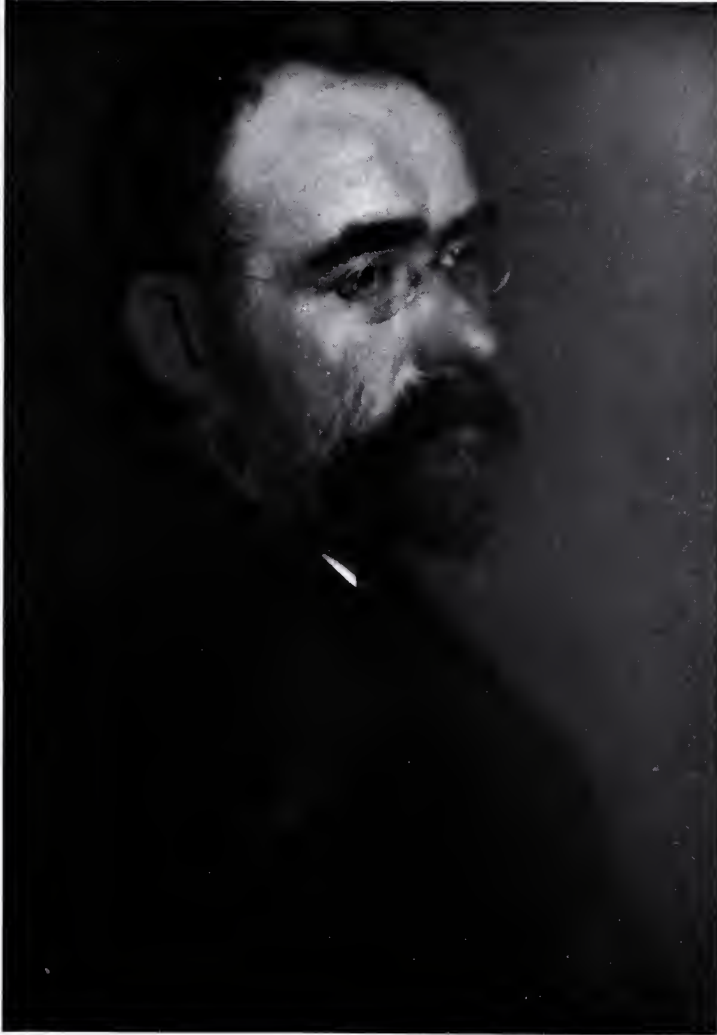
"'Well, Daniel Graves,' said mother, 'I'll show you that you don't know all about cows.' So she took a good-sized feed bucket and two quarts of soft soap in a basin, she mixed in the bucket a mess of rich slops of bran and cornmeal, then added the two quarts of soft soap, stirred it thoroughly in and sprinkled a little salt over the top of the mixture. I watched interestedly the whole performance, being doubtful of 'Old Moll' taking her medicine, yet hopeful she would, so mother might win.

"Father carried the bucket out in the yard and placed it as a temptation to good Moll, who at once plunged her nose quite to the bottom, then quickly withdrew, shaking her head and twisting her nose to an expression of loathing and a shudder of disgust, trying to drool the hateful dose from her mouth. For several minutes she stood and hated it. She resented it as an indignity unfairly put upon a worthy and faithful servant. Now, after waiting a time, carefully reached her tongue out, and, little by little, licked the bitter stuff off her nose and chops, as far as she could reach. What was beyond she wiped off on to her fore leg, then licked it cautiously into her mouth. Her prejudice against the stuff was very marked. She looked at the bucket, smelled of it, sniffed at it, and finally wiped her tongue into it, shuddered with a less intense disgust than before, but still hating it. Now, at a shorter interval, with

feebler resistance, she dipped again, with a seeming ability to tolerate more heroically. An hour consumed in hating the soap and loving the meal finally emptied the entire contents of the bucket into her stomach. The sharp

ing morsel. That was a case of *prejudice overcome*.

"Next day good 'Moll' was entirely well, and frisky. Mother said, 'didn't I tell you so, Daniel?' And father walked off into the barn without strik-



Wm. B. Dyer,

Chicago.

angle where the joining of the bottom and side staves met, where possibly a fine streak of the delicacy — for it was no longer a medicine — had been forced, 'bossy' reached her tongue and wiped over and over to secure the last remain-

ing back — without even pretending to hear her."

Then Mr. Graves said, "You must be tired, young fellow; it is time to go to bed. I believe in keeping good hours."

The "entertainment" was put back in the closet. I never saw the "private office" again. The next morning, having gotten my camera set up ready for operating, I invited Mr. Graves to sit for me by way of testing my chemicals, which resulted in my getting a striking and characteristic likeness of him, which pleased him greatly.

If, before, there had been a doubt of success in that town the doubt was swept away in that sitting. I never saw a man more interested than was that self-same tavern-keeper. He wanted to see how it was done and I showed him carefully, step by step, every point and every stage of likeness taken. He was as pleased as a child. He carried that picture in his pocket constantly and showed it everywhere. He brought many people to me and quite insisted upon their having sittings. He was indeed a good help to me and secured me much business, yet did not neglect his own in the meantime, but "kept tavern" all the time just the same. He always addressed me as "young fellow," and spoke of me to others as the "likeness man." He gave it out confidentially among his friends that I was the inventor of the art. He said to one of his friends, "that young fellow studies most of the time. Just notice how big and thick his head is. That comes of hard study. Why, the room he occupies smells mysterious, and his camera is a wonderful little machine. A fellow that can make likenesses so true as he does of course has to have a good head on him."

Sometimes early in the morning he would awaken me and say, "It's a good morning for trout; they'll bite like wolves today. Hurry up and we will have a trout breakfast." We would start out at a sharp pace for a stream which was a little way from the village and in the edge of the wood, overshadowed by trees. As we neared the stream Mr. Graves cautioned me to silence, and to avoid noise in walking, "For," said he, "these little rascals are shy and suspicious to a fault. When they get a notion you are after them there's no doing anything with them.

just below here where there's an elbow in the stream and a clump of bushes on the shore is the spot to fill a small basket in short order."

The small basket, with the bottom covered with fresh, green grass, was a part of our outfit and did not have to wait long for the beautiful speckled fellows from the cold, clear brook. Mr. Graves was expert and I quite amateurish. He would drop three or four in the basket to my one. The joy I found in the few I caught kept me from discontent at his greater success. I had the grand satisfaction, our first morning out, of landing the biggest one in our basket.

We were permitted to see Mrs. Graves manipulate the "little innocents," on flourboard, in frying-pan, thence to platter and upon the table.

We recognize the weakness of words to describe the flavor of a fine group of those little chaps — just fresh caught — *by the man who eats them*. We extend sympathy to him who, from any chance, has not been privileged to *catch his trout* and *eat his trout*. If it occur to him that in some small way life had failed to reach a climax, possibly he has been defrauded of a lively brook trout.

Mr. Graves kept his word as to giving me a good time and a good business. I was six weeks in his town and carried away a fine pocketbook. My departure from that pleasant and profitable place was under protest of Graves. He said, "If you don't find it to suit you in Ohio, young fellow, come back here; we will take good care of you."

All through the fifty odd years since I parted from Mr. Graves his image has lived in my mind. I have never seen his like since. I have never met a more companionable or peculiarly eccentric man. I have cheated myself of a pleasure in failing to go back and visit him.

I often wonder if the streams swarm with trout as they did then. I wonder if he still keeps the tavern.

NOW READY.—Pictorial Landscape Photography, by John A. Hodges. Price, 75 cents in paper cover, \$1 in cloth. Published by The Photo-Beacon Company.

**PHOTOGRAPHIC PRINTING
PROCESSSES.***

BY LOUIS H. HOYT.

CHAPTER VIII.

DEVELOPING PAPERS.

Professional photographers, as a rule, do not take kindly to this style of paper.

ing or handling it and that much stock is lost or wasted. This is all foolishness. With a fraction of the amount of experience required to turn out a latch of prints on printing-out paper, the printer can get out his work with practically no loss at all and with great



C. W. Longdon,

Chicago.

The only possible reason why they do not is that they are not familiar with the process of working it. The idea obtains that there is a great uncertainty in work-

saving of time. I do not exaggerate when I say that I have made hundreds of thousands of prints on this style of paper and, in my opinion, it is unequaled for professional work. A

* Copyright, 1901, by F. Dundas Todd.

thousand prints a day for a man and a boy is easy. When the work is of a small size and there are many prints from a negative, one man can turn out double this amount. The professional worker should investigate these papers thoroughly.

For the amateur it is unequaled. Printing as well at night as in the daytime, spare moments at any time may be employed. Any style of finish and any tone may be obtained and the results are permanent.

These papers are made in different grades, and it is essential that the results given by the various grades be understood in order to get the best results. The kind of paper which is generally known as carbon is comparatively slow in printing speed and the print is on the contrasty order. This grade of paper is most suitable for all-around work, especially out-of-door pictures. When the negative is overtimed, foggy or flat, the slow paper will give the most contrast possible to obtain. It is not so good for very strong negatives, as it will probably increase the contrast.

The paper classed as portrait is much faster, requiring shorter exposure. It prints softer, giving full detail. This grade of the paper is most suitable for portraits, interiors and work of that nature. Very contrasty view negatives will give good results also. The portrait paper is not suitable for average amateur work. It is quite impossible to produce good prints with it from negatives that are thin, lacking in contrast or foggy. A great many amateurs think that because it is labeled Portrait, Special and so on, it is better than the Carbon grades. This is wrong. The fact that a shorter exposure is possible is no argument either, if you do not get the best results that are possible. Get a package of each and compare notes carefully, using the same negative for the test. I have answered hundreds of letters from amateurs, asking why their prints were flat and wanting in contrast. Their conclusion was that the paper was at fault, while the real cause was that they were using the

wrong grade of paper for the quality of negative employed.

Both grades of paper should be at hand while printing, so that if one does not give the desired result, the other may be used. The papers are made with all surfaces and are labeled Matte, Rough, Glossy, etc. Each surface can be had with either slow or fast emulsion. The finish which one manufacturer may label Carbon Matte, may be entirely different from that of some other maker. For instance, the Velox Carbon has a very smooth surface and the whites of the finished print have a chalky appearance, while the Cyko Carbon is on a much more grainy paper and has a slight gloss. You should try them all and adopt what you think is best. The speed of papers bearing the same grade label, but by different makers, will vary greatly. If you try one make of paper and then another, you must expect this variation in speed. Do not sit down and write a long letter, telling how you find a certain make of paper of greatly different speed from some other you have been using. The maker knows this without being told, and you can rest assured that he makes his paper of a certain speed with some object in view.

The manufacturer, when writing up his advertising matter and direction sheets, tries, for business reasons, to make the working of his paper seem very, very simple. You are told to work so many feet away from the lamp, etc., and the beginner may or may not follow these directions. If he does at the beginning, he will probably keep hedging closer to the light and soon he begins to have trouble. Just why the average amateur will not use the common-sense with this work, that he (or she) does with other employment, is a puzzler.

The developing papers are very sensitive to light, and to handle them with success some little preparation is necessary to protect them from it. It is very risky to work the paper in a room in which any amount of white light is burning or being admitted from outside. With the fast or portrait paper



Clayton Harris.

Philadelphia.

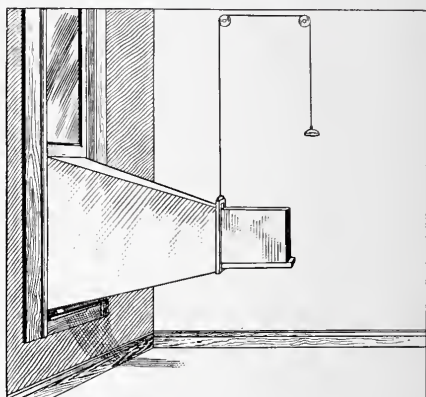
it should not be attempted. Perhaps many of our readers have worked in this manner and secured results that satisfied them; but I want to ask any who have, to exert themselves slightly in fitting up properly, and after doing so to compare results. Supposing we are printing by an ordinary gas jet and the exposure, with the paper behind a negative is, say, thirty seconds. Now if we open the package, fill the frame and, after exposing, develop the print by the same light, even though we do move back a foot or two, is it reasonable to suppose that we are going to get a print that is perfectly clear from fog?

There are innumerable ways of fitting up for handling these papers safely and rapidly. The main points to be considered are the covering of all lights so that they are of a safe color; arranging so that the printing or exposing may be done without admitting white light into the room and providing a light that does not vary in strength.

When working in the daytime, all windows and openings should be covered with postoffice paper, or yellow curtain material. This may be obtained from all dealers in household goods. It is perfectly safe and is of a color that is easy on the eyes and allows one to see readily just what is going on. The printing light should be so arranged that there is an opening large enough to allow for the size of plate to be exposed. When printing by daylight the simplest method is to make a four-sided pyramid out of some thin material, the larger end of which will cover the bottom sash of the window used. This box should project into the room say from eighteen inches to two feet. The small end should be several inches larger than the largest negative to be printed from. A square box the size of this small opening and (for an 8 by 10 negative) about a foot long, is fastened to the cone. Where the two join, provision must be made to allow for placing a shutter which may be raised up and down. The front end of this box may be fitted with kits to accommodate different sizes of negatives. To print,

ing at the front, raise the shutter the required number of seconds and drop it.

The following sketch gives the idea of the construction of this printing light. I know it to be thoroughly practical.



Inside of the square box, just in front of the shutter, there should be strips arranged so that one or more pieces of ground glass may be set to subdue the light as required. The printing window should be on the north side of the building, as the light is more steady. The worker of any experience at all knows that direct sunlight is altogether too strong for this kind of paper. A young gentleman sent in some paper to be tested, claiming that it was defective. He stated that he had printed in the direct sunlight for several hours and the image was just barely visible. He said he had followed the directions. I know that he never read them at all.

It is possible to print this paper in the sun the same as a printing-out paper, but it takes hours to get a strong image and it is flat.

[Should any of our readers desire to question or criticize concerning matters photographic, I will give their communications prompt attention, preferably through these columns. Address me in care of THE PHOTO-BEACON. If a personal letter is wanted, kindly enclose a stamp.]

The Photo-Beacon "Exposure Tables" are guaranteed to be correct. Price, 25 cents.

BEGINNERS' TROUBLES.**CHAPTER VIII.****"18K. OIL PAINTING."**

Several years ago a young relative of mine brought me two pictures to

full figure of a child. The photographs were mounted between two pieces of glass, bound together in lantern-slide style and backed with opaque paper. The color of eyes, hair and



Chas. W. Hearn,

Boston.

examine and asked me if I had ever seen anything like them before. I looked them over. One was a bust portrait of a young woman, the other the

drapery, with a slight tint of blue in the background, was rendered in a delicate, and for other subjects, rather pleasing manner.

I handed the pictures back to the young man, saying as I did so: "Yes, I have seen such work before. But those photographs are unusually good subjects for that style of coloring."

"When? Where did you ever see anything like that?" he demanded.

I ran my fingers through the gray matter on the outside of my head (for my hair is no longer as black as it used to be), and the gray matter on the inside went to work hunting up the recollection I wanted. It was found presently and I answered: "The first time I saw it was when I was a boy of not more than half your age. It was during my first term at an academy, when a little wizen-faced woman came to the school and announced that for two weeks she would be in the village prepared to give lessons in this beautiful art of German oil painting. Her terms were \$5 for a course of complete instructions; but as students usually had many expenses to meet, and were often cramped for the means wherewith to meet them, she would make a special reduction to members of the school. Students and teachers alike were to be taught for the paltry sum of \$3. After she had gone the principal of the school advised students who contemplated accepting this offer to first consult Professor Blank, who had been something of a sucker himself in his younger days. He put it in more elegant language than that, but we all knew what he meant. Since then I have seen many such pictures, in different places and under different circumstances."

"They were not like these," the young man protested; "this process was invented by a man who is now in town teaching it. He has a patent on it. I read the patent myself. It is all based on reflection, and —" but I have forgotten what else he said. In fact, I was not thinking about what he was saying; I was wondering what kind of a bunko man he had run up against.

I saw him soon afterward. He was smooth of tongue and suave of manner. He buttoned his vest with \$5 pieces, his coat with tens, and his overcoat he fastened with a row of double eagles.

He advertised his business on the streets every evening, and to draw a crowd he would give to the small boy who would yell the loudest a new silver dollar. Then he would generously throw a handful of dimes for the disappointed ones to scramble for. Oh, he was a blooded sport! Just the sort of a chap to catch the eye and the ducats of the gullible.

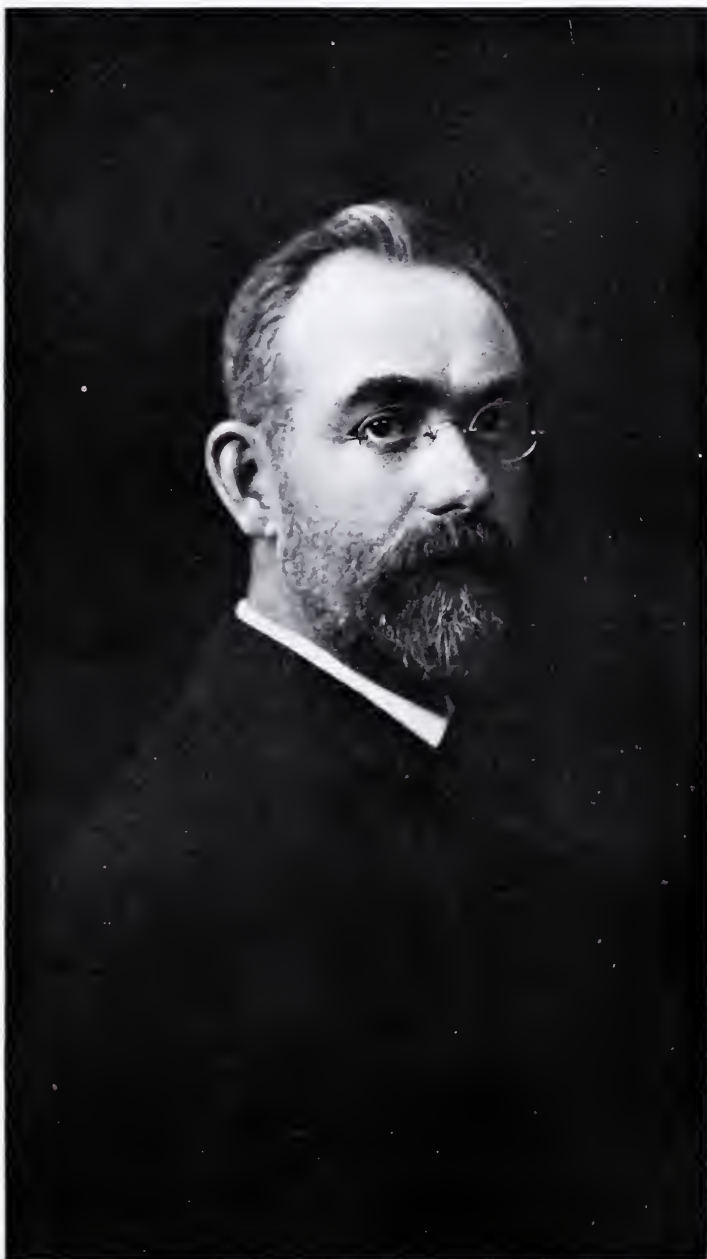
He taught the art of 18K oil painting in one lesson. His charge was only \$2 — a mere bagatelle. He only charged that to keep up expenses of traveling and advertising. He worked for the love of it, and lived on his — gall.

His pupils were taught to coat the face of a photograph with a paste made by dissolving 18K cement in water. This cement came in thin transparent sheets, and he sold about a sixteenth of an ounce of it for 15 cents. (If you buy it in a drug store they will charge you 5 cents an ounce for it.) It would not keep after being dissolved. (Of course not. Gelatin paste will never keep long without a preservative. Here is one that will keep, though:

Transparent gelatin	1	ounce
Water	4	ounces
Wood alcohol	1	ounce
Glycerin	$\frac{1}{4}$	ounce

Soak the gelatin in cold water, then dissolve by heat and add the other ingredients. It must be warmed slightly for use.)

The photograph, after being coated with this cement, was carefully pressed or rolled into contact with a piece of clean glass. While it was drying the artist took another piece of glass, placed it on the face of the first one so that the photograph could be seen through both, and proceeded to paint in the colors with oil paint. There were two spots of blue, we will say, for the eyes; the forehead received a daub of white with enough red added to give it a flesh tint; the cheeks and lips were usually colored more in accordance with the artist's taste, or lack of it, than with the requirements of the subject. When the thing was finished it looked like a colored crayon drawing of a snow-man such as we used to make



H. E. Mock,

Rochester.

when we were little tads. This was intended to go behind the photograph, and in order that the color might be seen through the latter it was necessary to buy a bottle of 18K Transparent Solution to rub over it till it became translucent. (This solution was probably castor oil, with the addition of some cheap perfume for a blind; but any kind of oil will do.) When the paint was dry the glasses were bound together with the paint and back of the photograph in contact. The color seen through the translucent paper of the photograph is quite subdued, and with the right kind of a picture to start with, is rather pleasing. It is out of my line, however, and I never tried it myself. I would not have written an article on the subject had not several readers of THE PHOTO-BEACON met this 18K man and, being curious to know how the work was done, thought it cheaper to spend 2 cents for a stamp and get the information through the columns of a \$1-a-year magazine, than to contribute \$2 toward his "traveling expenses."

J. EDGAR ROSS.

DEVELOPMENT.*

CHAPTER V.

CHOICE OF DEVELOPER.

I have already explained the two classes into which developers may be divided — those in which detail appears quickly and density follows slowly, and those in which detail appears slowly and density follows quickly. It is a favorite error with some writers to state that with developers of the first class (such as metol) the detail and high lights appear all at once. As a matter of fact the different tones of the image appear in exactly the same ratio whatever developer is used, if they are equal as regards bromide. For instance, suppose metol is used, the high lights appearing in ten seconds, the half-tones and shadow detail following in fifteen and twenty seconds. Try the same exposure with, say, hydroquinone, and if the high lights appear in one minute the other tones will follow in one and one-

half and two minutes — exactly the same ratio as in the case of metol. Although both classes of developers give exactly the same result if stopped at the same stage, there is undoubtedly a tendency among those who use the first (quick detail and high factor class) to get soft negatives of little contrast; because development seems a long time reaching the "contrast" stage. This first class, therefore (which may be defined as a developer whose multiplying factor is 14 or higher), is the most suitable to select for snapshots in sunlight and all subjects which have strong contrasts which must not be exaggerated.

On the other hand, there is a strong tendency among those who use developers of the second class to get their negatives too "contrasty" or tending to "soot and whitewash." So marked is this tendency among beginners using hydroquinone that an editor has told me that in prints sent in for criticism he could pick out, one after the other, all those developed with hydroquinone, and on referring to the notes find his judgment right in three cases out of four. This is because density comes so quickly that it is seldom that an error is made on the side of under-development. This second class, therefore (which may be defined as a developer whose multiplying factor is 8 or under), is the most suitable for subjects of little contrast, or those which it is desirable to represent with increased contrast. For my own part I prefer to use one standard developer for all classes of subjects, but to select one which is intermediate in character with a multiplying factor not lower than 6 and not higher than 12 or 14. I think it is difficult to imagine a more satisfactory developer than the favorite metol-hydroquinone. The factor is suitable and may be regulated by the properties of metol and hydroquinone, and it is quite active enough when used with ordinary carbonate of soda (sal soda) without resorting to caustic alkali, as is almost necessary when using hydroquinone by itself. To those who do not object to stained fingers pyro-soda is excellent:

* Copyright, 1900, by F. Dundas Todd.

its factor alters with dilution and a strength of two grains to the ounce is, on the whole, the most convenient.

stances. At one time pyrogallol (usually abbreviated to pyro) was the chief substance so used, and it still re-



Morris B. Parkinson,

Boston.

CONSTITUENTS OF THE DEVELOPER.

The active part of the modern developer is the developing salt. This, as a rule, is a definite chemical substance, not a mixture of several sub-

stances. Other developers introduced since are known as quinol (hydroquinone), metol, eikonogen, amidol, glycin, ortol, kachin, etc. All of these are soluble in water, but a sim-

ple solution of the developer in water is not efficient, and (except in the case of amido!) the solution must be made strongly alkaline to be an efficient developer. The amount of alkali used influences the speed at which the developer does its work but (within limits) has no other influence. The alkalis generally used are carbonate of soda (otherwise known as sal-soda or washing soda), carbonate of potash, and caustic soda or potash. Liquid ammonia (a solution of the gas ammonia in water) was formerly much used, but its volatile and uncertain character makes it impracticable for exact results. The caustic alkalis are rather objectionable because if too strong they attack the gelatin in the plate. They are found necessary with a quinol developer, the ordinary carbonates not being vigorous enough with that salt. But in the modern metol-quinol developer the caustic alkali is not necessary, and its use should be abandoned.

It is found by experience that there is no advantage in using very strong developing solutions, and that, on the other hand, very weak solutions take too long to do the work. For instance, with pyro it is known to be useless to have more than eight grains pyro to the ounce of water and four grains is the maximum working amount, while on the other hand one grain to the ounce may be taken as the minimum useful strength. Within these limits the rapidity of development varies with the strength of the developer, the proportion of alkali to the developing salt remaining the same. Similar limits will be found with other developers. In the same way the proportion of alkali to the developing salt lies within narrow limits, being (with carbonate) from six to twelve times the weight of the developing salt. The published formulæ of the handbooks and the platemakers are fairly safe guides in this matter.

USE OF BROMIDES.

While variations in developer and alkali have little other effect than altering the speed, quantity has a marked ef-

fect. Let us suppose Fig. 12 *a* represents the steps of gradations which have been produced by development for, say, five minutes without bromide. Fig. 12 *b* will represent the same gradations if developed for the same time with a



FIG. 12a.

developer exactly the same except that a little bromide is used. There is the same steepness of gradation or contrast in both cases, but the bromide has retarded development in all tones and has prevented the lowest tone A from appearing at all. In fact it has produced exactly the same effect as if a



FIG. 12b.

shorter exposure had been given. But the curious part (discovered by Messrs. Hurter and Driffield) is, that with longer development bromide loses its restraining power, and if you want to develop for steep gradations you will gain no control by the use of bromide. There is another part: it is too late to add bromide for overexposure after all the image has appeared. It is now known that the use of bromide makes speed tests unreliable, as you get a different speed reading at one stage of development to what you do at another. As with good modern plates bromide is no longer required to hold back fog, its use is unnecessary for all ordinary work. The restraining power of bromide is best taken advantage of in connection with a low-factor developer, such as quinol. An overexposed negative can be made to appear correctly exposed by such a combination, as the lower tones are held back for sufficient time to get a very useful amount of contrast. With high-factor developers, such as metol, you may try in vain to

influence gradation by the use of bromides.

PRESERVATIVES.

I have explained that the developing

rule, therefore, it is convenient to make separate solutions, and not mix until wanted; the developer (slightly acid) being in one bottle and a solution of the alkali in the other. Meta-bisulphite of



W. M. Hollinger,

New York.

salt must be used in an alkaline condition to be effective. But if you want to keep the solution in a bottle, it should be in a slightly acid condition. As a

soda (or potash) is perhaps the most convenient acid preservative. Half the weight of the developing salt is quite sufficient.

SULPHITE.

Sulphite of soda in the pyro developer prevents the formation of a yellow pyro stain image, and therefore keeps the negative black. It is not a preservative and (except perhaps for bromide papers) it is not needed for any other developer except pyro, and if you are content with a yellowish image it is not needed for that. When used, it is best dissolved in the solution of the alkali, and, as Chapman Jones has pointed out, should (to prevent the pyro stain) be in proportion to the bulk of water, not in proportion to the grains of pyro. No less than twenty grains to the ounce of developer should be present. The modern developer usually consists of two solutions, the first containing the developing salt and the acid preservative, and the second the alkali, with the sulphite, when this is used. The two solutions are usually mixed in equal parts.

ALFRED WATKINS.

A MARVEL OF THE LIGHT RAY.

Let us suppose ourselves on a serene summer morning standing on a commanding eminence. The atmosphere is transparent to the utmost horizon, not a breath of air is stirring, and no motion is anywhere to be seen. Everything speaks of absolute, undisturbed peace. The eye beholds the most minute detail in the distant landscape. Every tree and bush and clump of heath on the far hillside is seen with a clearness that fills us with delight. How strange it is to think that below this seemingly perfect calm there is a tremendous though insensible activity, and more than electric rapidity of motion in the omnipresent ether, the vibrations of which transmit to us the light by which all things are made visible! Let us try to realize one of the many wonderful aspects of the miracle of vision, for, like all our constant experiences, its very commonness renders us oblivious to the beauty and marvel of its working. Innumerable rays of light enter the minute camera of the eye through its beautiful iris diaphragm, and become focused, as a picture of the outward world, on the

sensitive surface of its retina. Here the tremors of the inanimate ether become the means of conscious vision, but how this takes place must remain one of the never-to-be-solved mysteries of life. The least consideration makes it plain that not only do these infinitely numerous rays enter through the diaphragm of the eye, but an equal number must impinge on every equally small portion of every surface that we see around us. Such is the infinite capacity and such the perfection of vibration of the luminiferous ether, that it is no exaggeration to say that each blade of grass on the distant hillside transmits vibrations that enter the eye at every instant, wherever it may be stationed to receive them. The seemingly inert pebble at our feet is in the same way continually adding its share to the far-spreading pulses of the universe. So infinite do we then know these light vibrations to be, and so astounded to think of what can pass instantaneously through the most minute aperture, that we feel repelled from the attempt to realize it even in the most imperfect degree. It is, as it were, infinity multiplied into infinity. The luminiferous ether is like a loom whose web fills the universe, whose threads are rays of light and heat, that constantly interpenetrate each other in directions infinitely varied, yet do not destroy each other by collision. And so we find that, amid perfect external calm, the heart of Nature continually thrills with illuminating, warming and binding influences, and this benign service for man is done in secret and in silence. Nature has mystery behind mystery, wonder surpassing wonder, and majesty more and yet more transcendent—themes whose contemplation exalts the spiritual nature and expands the sympathies of those humble and reverent souls whose highest aim and most intense delight is to "follow Nature up to Nature's God."—*James Craig, in Amateur Photography.*

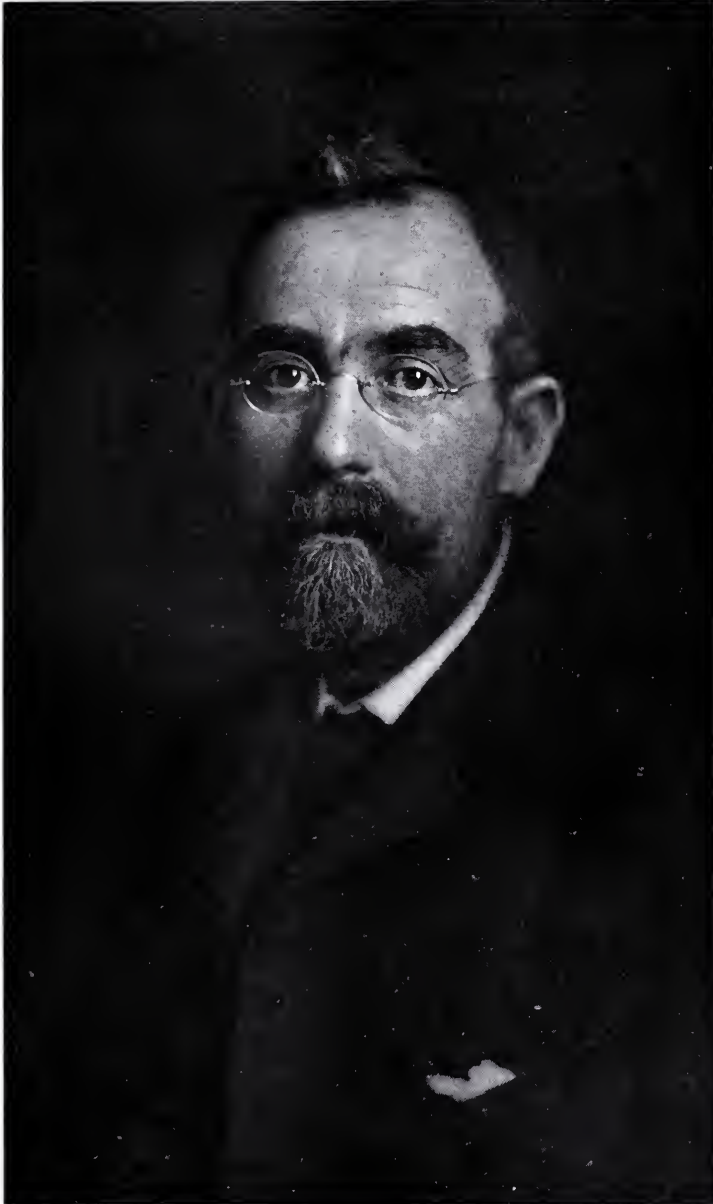
I AM using your Exposure Tables and am sorry that I didn't buy them sooner. Yours truly,

L. C. W. SCHNEIDER.

**PHOTOGRAPHIC PORTRAITURE AS
AN ART.**

As I understand it, the purpose and scope of portrait photography, as an art, is to approach nearer and nearer the work of recognized masters in por-

traiture. The worker with a camera, however, is at a personal disadvantage, as compared with the painter, by reason of the fact that the latter is, to a greater or less degree, acquainted with his subject, and there is ample opportunity.



Will. Armstrong,

Boston.

while sittings are in progress, for friendly, unrestrained companionship. Through this intimacy of association, the artist acquires a fair knowledge of the mental make-up and characteristic traits of his sitter, and is thus enabled to put the latter's individuality on the canvas.

On the other hand, the photographer, even one of the better class, in most instances, has probably never before met his patron, and to that extent is handicapped in his endeavors to put character and soul into his portrait.

With the photographer the sitting lasts only a portion of an hour, and a part of this time is, of necessity, devoted to arranging of apparatus. If the rapidity with which a sitter can be disposed of — rushed into the "operating" room, put into "poses" with the head securely clamped in a "rest" (?), asked to "look pleasant," and excused from further attention by a vociferous "next!" — if this method of rapid handling of subjects were the one employed by all photographers, their process of portraiture would never advance beyond the purely mechanical.

Portraiture by photography is now claiming recognition as an art, because a few of those in the craft have had the courage to say:

"I will not permit my name to go on factory work. I will not allow myself to be transformed into a machine in which rapidity of action is the only consideration. I will aim to obtain results which will command approval from those who are competent to judge artistic productions. If, in order to accomplish this purpose, I must limit my daily sittings to three instead of thirty, this shall be done. I must have time to give each subject proper attention. I want my work to bring out the individuality of the sitter. There must be soul, as well as features, in the face."

In order that the principles underlying artistic portraiture may have opportunity for expression by photographic methods, it has become essential for a man who endeavors to create productions having art merit and who strives for quality, rather than quantity,

to devote more time to each subject. By this I do not mean to say that the actual time employed in making of negatives should necessarily be increased, but that the time devoted by the photographer to becoming acquainted with his patron should be greater. The purpose of this is obvious; it allows an opportunity for learning the salient points of character and utilizing this knowledge toward obtaining a portrait not only good as to feature-likeness, but strikingly natural in portrayal of characteristics.

It must be admitted that photographers are largely to blame for the small demand for artistic merit in their productions. For years they have taught the public that the correct thing in portraits was a white, shining face, without a trace of the bone formation. The most important employe of the "gallery" was the "retoucher," who, without any correct knowledge of the anatomy of the "human form divine," chiseled the negative until the resulting photograph portrayed a being out of all resemblance to the "image of his Maker."

The boon companion of the retoucher who produced smooth faces was the artist who believed that the face should be as white as the collar, shirt-front or protruding corner of handkerchief.

The photo-factor knew all about chemical effects in his print, which made the stitches in the buttonhole of a man's coat "to part and stand out like quills upon the fretful porcupine."

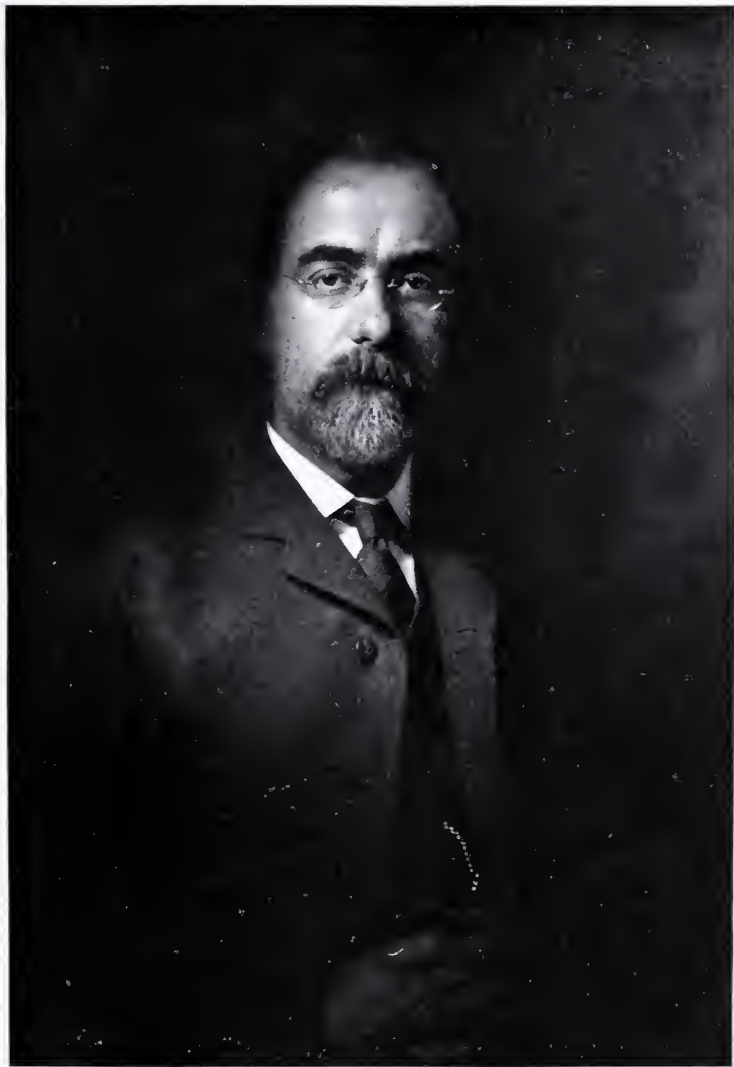
It is difficult in a year or two to offset the effect upon the public of the practices of a couple of decades. It will probably take some time yet until patrons unlearn the teachings that photographs white in color and defrauded of character by excessive retouching, with prominence of detail, are not only untrue in fact, but wholly lacking in art qualities.

Among those who strive for the higher possibilities in camera portraiture the retoucher's importance has vanished, and his work has been made secondary. It takes many years of life to produce the lines of character in the

human face, and these should not be eliminated to suit the whims of a barbarian whose ideal of the face is a china-ware doll.

Comparative color-values is a subject of much thought and conscientious

the unessentials of a picture will be replaced by proper suggestion, in accord with nature. To sum up; a portrait by photography, just as one in oil, should have feeling and warmth and character. And in the last year there has been a



Dudley Hoyt,

Rochester.

study. A mere contrast of harsh lights and shadows is meaningless, and no more resembles the living subject than do the crude drawings of the aborigine. An exaggerated regard for details in

great advance, a wonderful progress toward the truthfully artistic and artistically truthful in photographic portraiture. The work now being done by those few photographers who realize

the errors of the past, as compared with that of a few years ago, shows the same degree of improvement that there was from the tintype to the photograph of recent times.

That this forward movement will continue is guaranteed by both the works and the faith of the recognized leaders in our craft.—*J. C. Strauss, The Art Review.*

NICHOLSON'S ADJUSTABLE LENS SHADE

Is the name of a very useful little article that will be very useful to those who aim at pictorial photography and have been often inconvenienced by the sun shining into the lens when making exposures against the sun. At the reasonable price of 50 cents it should sell well. Manufactured by the Jackson Lens Shade Company, Jackson, Michigan.

A GILT-EDGE CAMERA.

In an English exchange just come to hand there is a description of what are possibly the most costly cameras that were ever built. It seems the Sultan of Morocco has become interested in the photographic art—a fact, by the way, that is very interesting, seeing that the Mohammedan religion forbids, like the Jewish, the copying of anything that is in the heavens above or in the earth beneath or in the waters under the earth—and has become so enthusiastic that he is spending money lavishly on it. A plain, every-day camera apparently is not good enough for his royal nibs, and so he has blown himself to the tune of \$10,000 for a $3\frac{1}{4}$ by $4\frac{1}{4}$ instrument, all of the metallic bits of which are of 18K gold. He has also had a $4\frac{3}{4}$ by $6\frac{1}{2}$ instrument constructed in which silver is employed, this little extravagance footing up the respectable sum of \$5,000. Sheathes, shutters, lens mounts, screws, everything, in fact, is made of gold or silver, as the case may be.

Several months have been occupied in the production of the cameras, which carry Zeiss convertible anastigmat lenses, and it is superfluous to add that they are superbly finished. Something

like ten pounds of pure gold have been used in the $\frac{1}{4}$ plate instrument, which weighs, all told, about thirteen pounds.

This is barbaric extravagance with a vengeance. It is to be sincerely hoped his royal highness will not get mad some day over the instrument and put his foot through it, which will then cost him \$10,000 or \$5,000 a kick, depending upon the instrument that arouses his ire.

MR. H. SNOWDEN WARD draws our attention to the Illustrated Press Bureau, Limited, 10 Norfolk street, Strand, London, of which he is one of the directors. Mr. Ward says:

"I have long taken an interest in fostering the connection between photographers and the illustrated press, and during the past few years have introduced many photographic workers to editors prepared to purchase their rights. Within the past few months experience gained from the correspondence in connection with "An Index of Standard Photograms," has shown me how many photographers, especially those in the British provinces and abroad, find it difficult to get into profitable touch with the illustrated press. I have, therefore, every reason to believe, in associating myself with Mr. Robert McClure and Mr. Sibthorp, who already have very extensive connections (as literary agents) with the illustrated press, both in Britain and America, that we may be able to establish an agency which will be of great use to many photographers as well as to editors using illustrated matter."

According to the prospectus, a copy of which Mr. Ward sends us, the Bureau acts as agent between photographers who have subjects suitable for reproduction in the illustrated press, in book illustration, etc., and the editors and publishers of illustrated matter. A copy of the prospectus can be had at the above address.

BURKE & JAMES have been appointed sole wholesale agents in Chicago for the *Photo-Miniature*.

THE EDUCATIONAL CONVENTION.

Photographer, stop and think what this may mean to you. This is an age of progress, and the photographer who does not keep up with every department of his work is bound to fall behind. You can not afford to let any opportunity go by wherein you can gain. If you have missed other conventions you have regretted it no doubt, but if you miss this one you can not forgive yourself. Then, too, you go to Detroit, the most beautiful city in all this broad country. You say that is

into the fold of the stars and stripes only to return again to her former royal lover, from whose arms she was again taken, to remain forever under the shadow of Old Glory. Ravaged by sword and fire, she rose from her ashes to become one of the gems of the great Northwest. Famous in song and story, she wraps herself in modern robes, but the perfume of the past lingers with her still; everywhere her praises are sung; but we revel most in her beauty when others enjoy it, and it is to this place that the photographers of America are



Negative by Jas. E. Taggart.

Delaware, Ohio.

FIRST PRIZE.

putting it pretty strong? Well, go ask any of your friends who have visited it, who have glided over the river's blue waters, have watched the constantly moving panorama of vessels that carry the wealth of the lake cities who have walked or ridden up and down its broad streets and avenues, or rested beneath the trees of its splendid parks. They will all say the same thing, and it is historic Detroit that will welcome you. In tradition older than Plymouth Rock, and the colonies so changeful in her moods that she has even changed her flag five times. First the lilies of France floated over her people, then the cross of St. George became her shield, then by the fate of nations she came

invited. Come and bring your wives or sweethearts, forgetting for the time the worry and care of bread-winning. But a rest is not all that you will receive, for this is the educational convention, where you will be treated to a splendid exhibit of what others are doing and have done. You need not fear the decision of the judges—there will be none—each will do the thing that he thinks he can do best, and you can measure your own failings or merits by his success or failure, as you see it by comparison. Bickering, heart-burnings and jealousies will find no place at this convention, for there will be no medals or prizes, but each shall stand on his own foundation, and finding it built on sand

can steal the cornerstone of his neighbor and begin the building anew of better and grander work than he had dreamed of.

It would be hard to list the good things that are being prepared for you. We can only say come and enjoy them, profit by them, and go back home with new life, new ambitions, higher hopes and higher aims. A. A. GRIFFITH.

A CHEAP PRINTING PROCESS.

The photographer who desires to turn out his prints upon an economical basis has plenty of methods among which to make his selection. Generally speaking, those which employ bichromate salts will be found the most economical of all, and among these there is the process recently put forward employing mercuric nitrate. We may mention for the benefit of our readers that it is carried out by immersing ordinary paper in a ten per cent solution of bichromate for five minutes, and drying it in the dark. When dry, it is ready for printing, which must be carried out in a good light, and which results in a visible image of a reddish color, but not a very strong one. When the shadows are very distinctly visible, the printing is finished, and the paper must be washed in water until the whites are quite clear, after which stage it is immersed in a bath made up by dissolving eighty grains of mercuric nitrate and twenty grains of potassium bichromate in an ounce of water. This solution should be made some hours before use, and should be allowed to stand until required, when it may be filtered, and is then ready. The resulting liquid, which is of a green color, will gradually turn the picture to a very pleasant red tone, after which it may be washed and dried. Those who prefer a brown tone can treat the print with dilute ammonia (sixty minims of strong ammonia to the ounce of water is quite strong enough), washing well between the mercury bath and that containing the ammonia. These prints, it is noteworthy, can be toned in ordinary gold toning baths, in which they gradually turn to a purple.

LIST OF PRIZES OFFERED BY THE ROTOGRAPH COMPANY.

In last month's issue we intimated that this company was offering a large number of valuable prizes for users of their paper. For full particulars apply to the firm, but the following outline will indicate the broadness of the field they cover.

One grand prize of \$200 in cash to be awarded to the all-around best picture, whether a contact, enlargement or a postal card.

In the contact class, seven cash premiums, ranging from \$75 to \$5, are offered; also forty prizes payable in Rotograph Bromide paper.

In the enlargement class a similar lot of prizes are offered, while in the postal card class the premiums run from \$30 to \$5.

Altogether the company offers 119 premiums of a total value of \$610.

Full particulars can be had from Rotograph, 101 Fifth avenue, New York city.

PHOTOGRAPHS ON CLOTH.

The earliest experimenters in photography managed to make photographic prints not only on paper, but also on cloth, on leather and on a wide variety of other materials; but it is also true that they did not make so many successful prints that the art became generally popular as a result of them, and it is only within the past two or three years, or since sensitol was introduced, that enough interest in cloth printing has been aroused to constitute it a distinct branch of photography.

Since sensitol came in, though, there are comparatively few photographers, either professional or amateur, who have not taken up cloth printing. The chief reason for this, apart from the great beauty of the sensitol prints, is the extreme ease with which they are made, and the cheapness of the cloth that is best adapted for the work.

There are but few requisites in sensitol printing: the first is that the cloth and the coating brush be strictly clean; the others are to print very lightly, and to wash the prints very thoroughly be-

fore toning and fixing them. By bearing these points in mind and never deviating from them, anybody and every body can be successful as a sensitol printer, providing, of course, that he also have a supply of sensitol to work with.

Cotton or linen of any grade can be used for making sensitol prints, but the very best cloth I have seen is a grade of sateen that is known under the trade name of "Lustral Lining."

The old process of making cloth prints was to first saturate the cloth with a dilute solution of chloride, and

be weak, but sensitol prints are clear and vigorous in a remarkable degree; they can be toned from a warm sepia to a pure black-and-white at the option of the operator, and they are indelible.

RUDOLF SVALO.

THE MARTYR BEHIND THE COUNTER.

"I will take this camera if you will guarantee that I will be able to make as good pictures as these samples," is one of the propositions often hurled at the man behind the counter.

The camera salesman often stops in



Negative by Sara W. Holmes,

Sedalia, Missouri.

SECOND PRIZE.

afterward treat it with a solution of nitrate of silver, whereby a deposit of chloride of silver was formed in the fiber of the cloth. This was then reduced by printing it behind a negative in sunlight, and the print was treated essentially like a print on ordinary printing-out paper. But, owing to there being two coatings required, it was difficult to avoid streaks and other blemishes.

Sensitol is a clear liquid of a delicate greenish yellow color, and a single application of it is all that is required for the complete and absolutely even sensitizing of a fabric, for no streaks are possible if the cloth be perfectly clean.

Prints by the old process were apt to

the midst of the busy day to sigh and pinch himself to find out where he is at. He dreams of green fields and running brooks, and is rudely awakened by the query: "If I give an exposure of twenty seconds in our parlor at home, do you think it would be long enough?" He tries to dodge, but an excited individual rushes in and stabs him with, "That developer you sold me last week is rotten. Took two snapshots of baby in the nursery and not a thing showed up on the plates!"

He gets things smoothed over after a while and tries to explain to the cynical female that Velox paper is not used the same as Solio, and that he

really could not replace the sheets which she had left in the sun for ten minutes, without a trace of an image showing.

And so it goes day after day, until the poor martyr's heart is a fluttering wreck, and his mind wanders back to the old days on the farm, and his boyhood retreats in the wildwood, when he stretched the neck of the garter snake, and clubbed the athletic bull-frog over the left optic.

To be a successful salesman in the photographic supply line, a man must be a born diplomat, and the possessor of an unlimited amount of photographic lore that he can pour out to the inquisitive amateur with the satisfaction of knowing it will be retained for the space of at least one half hour. This may seem rather rude, but it is discouraging to the clerk after he has consumed much valuable time describing the process of development, to have the beginner come back and say that he mixed the developer and hypo together, as he had been told to do, but that no picture had appeared on the plate.

Some people never bother reading directions. The writer remembers the case of a farmer out in a hamlet where the freight cars pass through once a week, by mistake, who sent for a film camera and some film and started in to do things. He came into the store about two weeks after and was mad. He said that the lens in the "machine" got everything twisted, and he wanted his money back right sudden. It took all manner of questioning to find out that he had been printing from the glossy side of his film, and consequently his pictures were all reversed. We asked him why he had not read his direction book, and he held his head up and informed us that his brother was the crack photographer of the county, and that he was working under his instructions. What can the martyr do in a case like this? Look pensive, that's all.

Often a "fiend" will bring in a formula to be put up, written so poorly that neither she nor the salesman can

make it out. The only way to do in this case is to bring out a bushel of printed recipes from the different plate-makers, and let the anti-Spencerian devotee take his choice.

The martyr often gets some queer orders from the "back districts." Here is one. It's brevity is ideal:

215 bottle Ch. Gold.

2 Carb.

Developer to dev. 6 doz. plates (no size mentioned).

5 hyp.

3 flash.

After two or three letters pass, he finds out what is wanted:

Two fifteen-grain bottles chloride gold.

Two pounds carbonate soda.

Three bottles developer.

Five pounds hyposulphite soda.

Three boxes flash-light powder.

Orders by mail are not always as good as they look. Some old fellow out in Frog Hollow, in some obscure way, came into possession of a camera and wrote for instructions.

We sent him a little book and waited for his order. It came in a few days, was of a good size, and to be shipped C. O. D. by express. We had it all neatly boxed, and had just hung out a notice for the express company to stop, when the mail carrier handed in a letter from our country friend. It ran: "Dear Sirs,—Don't send my order. Have read your direction book four times and think it too hard, so will not bother with the camera. I will sell it cheap. If you could use it, please answer."

He is still waiting for a reply.

Perhaps the biggest nuisance in the aggregation is the fellow who has had a camera for three months, and who forgets more over night than the practical photographer has been able to accumulate through his many years of experience. He leans over the counter and tells the martyr that he has photography "cinched," that he is a complete encyclopedia of formulas, that So-and-so's plates are no good, and he wouldn't use — paper if he was paid to, etc. And, by the way, he was showing some of his prints to Van Teaser, of the Camera Club, and he pronounced them prize-winners, espe-

cially two landscapes where the atmosphere effect was swell.

Then he fishes out his note-book, and takes three or four prints from between the leaves and lays them on the showcase so the martyr can see for himself that Van Teaser is a truthful critic. They are, of course, dreadfully overtoned, and the landscapes certainly have atmosphere — judging from their fogged appearance. The poor salesman would like to tell the nuisance that in his private opinion some of the fog must have filtered through his cranium and caused an abnormal development of his bump of approbateness. But he "dassent" — it wouldn't be business. So he kicks his shins under the counter, and says he hopes that Sunday will be a fine day.

The nuisance usually talks for half an hour, and then buys a 10-cent tube of developer, incidentally remarking that he'll see if this is any worse than the last one he got.

Then there is the young man who is forever trying something new. He never uses the same developer on two different plates, he is continually experimenting with some new brand of paper, and never finds anything that just suits him. He carries money around in his hand so he can get at it quickly in case he sees any novelties in the supply-house window.

He is a good customer in a way, but after a while becomes a bore, and makes the crown of martyrdom still harder to bear by his continual fault-finding. He blames the dealer because his paper does not work right. He says the plates he got last week must have been hoary with age, as he could not get the effects he sought for. And the hypo takes too long to dissolve, and the last developer he bought had not the strength of a good resolution, etc.

He soon becomes disgusted with photography, and throws his camera up in the air and closes his eyes so he won't see where it drops.

Then there is the suspicious customer who always thinks he is being buncoed. He examines everything



Neg. by J. V. Toland, Vallejo, Cal.

THIRD PRIZE.

with a critical eye before he buys, to see if the maker's name is on it. He wants to know if he can bring things back if he finds they don't work as represented.

And the middle-aged lady who wants a roll of film put in her camera right away, as she has to catch the eleven-fifteen train; and then, after it is in, finds that she has left her purse at the hotel or lost it, and so she will have to get her film at the next station.

And the old gentleman with the white whiskers stained with tobacco, who loves to spend half an hour telling what money he used to make taking tintypes at the fairs.

And the —; but why continue. The list is long, and it grows tiresome. Each day of the martyr's life adds to his credit in the big ledger — adds to his stock of patience and knowledge of human nature, and draws him closer to the great pulsing heart of the business world.

There are many little rays of sunshine that find their way around dark corners — so, also, many little friendships are formed across the showcase,

and at the end of the busy day, when the weary salesman mentally figures up his debit list of vexations and his credit list of satisfactions, he often feels his crown setting lighter upon his tired head, and his drawn features relaxing into a peaceful smile.

WALTER G. TEUTON.

F. D. Todd, Editor of THE PHOTO-BEACON:

DEAR SIR,—The Photo-Beacon Exposure Tables are a wonder, for the lot of information given for such a small book and sum. I would not be without them.

Yours truly,

J. C. HEES,
Great Falls, Montana.

THE C. P. Goerz Optical Works has just completed its 100,000th Double Anastigmat lens, which happened to be a No. 9 Series 3 of 24 inches focus. This event was adequately remembered by a celebration in the factory. It may certainly be considered as a magnificent record to have made and marketed inside of eight years 100,000 Anastigmat lenses, and undoubtedly is one of the convincing proofs of the high perfection of the Goerz products.

PICTORIAL PHOTOGRAPHY AT THE ST. LOUIS EXPOSITION, 1903.

Writing to the managers on this subject, Julius C. Strauss says:

"Permit me to suggest a feature for our World's Fair which would, in my opinion, be essentially different from what has been done at any former international exposition—would arouse great interest in every civilized country and would attract the attention of every visitor.

"Have a pavilion devoted exclusively to pictures produced by photography, whether made by amateur or professional photographers, provided same give evidence of artistic feeling.

"The universality of the camera has caused nearly every person in the more enlightened countries to have a lively interest in photographic productions.

"Heretofore only limited space, usu-

ally in a building devoted to manufactured products, was given to photography. In recent years portraiture by photography has successfully invaded art realms and commanded recognition by art critics as being far above and beyond the mechanical in processes and in results.

"The display of pictures should be along salon lines—that is to say, only such pictures should be exhibited as are considered worthy by a competent committee of artists (not photographers), no distinction to be made between amateurs and professionals.

"The detail and clerical work of giving this feature the widest and most general publicity would be conducted by the photographers of this country. Through their efforts in arousing the interest of their fellow-craftsmen, both by direct communication and through the medium of periodicals devoted to photography, the St. Louis World's Fair would become advertised in every town of any consequence on the globe and gain the enthusiastic support of more individuals (amateur photographers) than would result from any other contemplated display."

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Negative by Jas. E. Taggart,

Delaware, Ohio.

FIRST PRIZE.

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THE NATIONAL CONVENTION.

The annual convention of the Photographers' Association of America, which was held in Detroit from August 6 to 9, must be pronounced a great success. The officers had christened it the "educational convention," and they had strained every nerve to hold the teaching ideal always before them. It was a wise move to get Mr. Hitchcock, of the Buffalo School of Art, to talk to the members, and he placed before them the subject of "Composition" in what was to most of those present a new line. In the last few years artists have realized that the Japanese school of art have much to teach Westerners on this subject, and the lecturer took their ideas as his theme. It is such a simple conception of this difficult subject that it could not fail to at least make every individual think. With this start one and all of them should be led to take more interest in composition than ever before, and at the next convention the work exhibited ought to be on a far higher plane.

Speaking of the work, tempts me to pass a few comments on it. Four years ago, had such a wealth of fine pictures been exhibited on the walls, I would have endeavored to gather in dozens of them for reproduction in the journal and felt that I had found a treasure trove, but today I am fastidious. I saw faults which then I would never have noticed, and saw less than a dozen of pictures that I would care to have. It was interesting to note how particular photographers have become and how

few pictures really met with their full approbation.

There were some decided departures by many of the exhibitors. Strauss made perhaps the greatest, for he has called in the aid of really good artists to help him in his work, and he absolutely depends upon them to compose a background adapted to the sitter's pose, it being filled in after his negative is made. This is certainly not straight photography, but I can not see that it is any more objectionable than having the background behind the sitter during the exposure. Both are artificial, but Strauss' method secures one that is adapted to the composition of the figure. The other rarely is. To me personally the greatest incident of the convention lay in contrasting the reception given to Mr. Hollinger with what he received from the association in the same city in 1895. Then none was so poor as to do him honor excepting one photographic editor from Chicago; now he is introduced to the members of the convention as their master. That such was possible is to me the greatest proof of the pictorial advancement of professional photographers in the past few years. Mr. Hollinger repaid his welcome by delivering to the convention what I consider to be the finest homily I ever heard delivered either from pulpit or out of it. It was such a common-sense conception of how to live. This I expect to be able to present to my readers in the next issue.

Not the least interesting subject, I am glad to say, was the collection of

photographs of myself which were reproduced in the last issue of THE PHOTO-BEACON. The contrasts were so startling that nearly every member came up to assure me that it had opened his eyes to the possibilities of photography, for no one had dreamt of so great an amount of individuality being possible with a camera. I think the ultimate outcome will be that each photographer will have in the future a higher appreciation of his powers than he had in the past and will take far more interest in his work than he ever has done.

I feel I ought to make a suggestion to the officers of the association for the ensuing year. Their aim, I think, will be to still further advance the educational idea, and I think they might, with advantage, introduce a very practical feature on the lines followed by the American Aristo Company in their school at Celeron for five years, where leading men were asked to demonstrate posing for photographers. Some might call this kindergarten work, but in my experience this is just the kind of teaching that the average man feels he needs, and it will therefore be gladly welcomed.

I sometimes think that photographers do not realize how valuable conventions are to them. I have been at something like a score in my life, and looking back over them, I have no hesitation in saying that more than half of my mental growth in the past seven years must be credited to my attendance at photographers' conventions. Frequently I have gone home from one and wondered what I had got in exchange for the money I had spent, but soon I began to find one little idea after another growing up within me and on tracing it to its origin I had to give credit to the contact with photographers at some particular convention. The meeting at Detroit in 1895 is one that will ever remain fixed in my memory, as it was there I came across certain ideas which have influenced me almost every minute of my life since and laid me under a debt to the Photographers' Association of America, and especially to Mr. Hol-

linger, that I feel I can never repay. My experience can be that of every man in the profession if he would simply get out and keep his eyes open.

F. DUNDAS TODD.

PICTORIAL COMPETITION NO. 39.

Some months ago I remarked on the great persistency shown by Mr. James E. Taggart, who seemed to be determined to score success in these competitions by keeping everlastingly at it. He had then scored his first success, and now he caps the whole thing by taking two first prizes in succession.

He is evidently a keen student of art principles and has won out by sheer hard work and tenacity. It gives me great pleasure to extend him my warmest congratulations.

The jury made the following awards:

First prize — James E. Taggart, Delaware, Ohio.

Second prize — Dr. Ira A. Eberhart, Chicago Lawn, Illinois.

Third prize — E. W. Remington, New York.

PARTICULARS OF WINNING PICTURES.

First prize — Made on Stanley plate, Stop No. 8, print on red chalk carbon.

Second prize — Made on Lovell C. D. plate with 4 by 5 Premo Sr. camera and Nehring auxiliary lens, largest stop, exposure four seconds. Printed on Bradley platinum.

Third prize — Made on Stanley plate, in November. Stop No. 8, exposure three seconds. Printed on Nox developing paper. Clouds printed in from separate negative.

FUTURE COMPETITIONS.

Competition No. 41 — "At Home" Portraiture, that is, portraits not made in a studio. Closes September 30.

Competition No. 42 — Snap-shot pictures. Closes October 31.

Competition No. 43 — Landscapes. Closes November 30.

Competition No. 44 — Flower pictures. Closes December 31.

RULES.

1. There is no restriction as to the number of pictures to be sent in. On

the print there should be written the title and sender's name and address, but nothing else. Accompanying, a letter or postcard should be sent us, giving full particulars of date, light, plate, stop and exposure given; also the printing process.

2. Mark outside of package with number of competition. Ordinary letter rate must be paid where descriptive matter accompanies prints.

3. Prints are not returnable.

PRIZES.

First—Books to the value of \$5.

Second—Books to the value of \$2.50.

Third—Books to the value of \$1.

Any books, on any subject, or if preferred, any article we can buy in Chicago.

THE EDITOR'S PORTRAITS.

If I may judge by my mail, the series of twelve portraits of myself in last month's issue is about the most interesting thing that has appeared in a photographic journal for many a long year. The following extracts are made from a few of the letters received:

EVANSVILLE, IND., August 8, 1901.

Mr. F. D. Todd, Chicago, Ill.:

DEAR SIR,—Not since I've been a subscriber to THE PHOTO-BEACON, which is now nearly four years, have I enjoyed a lot of pictures as those produced in this month's number.

The pictures I allude to are the portraits of yourself as made by the different photographers. Well, it does me good, no doubt other subscribers also, to at last see a portrait of one who has done more for the amateur photographer than any other living soul, and for which you have my many thanks and a high appreciation of your kind endeavors.

Although I've never had the pleasure of seeing or meeting you personally, yet I fancy and imagine the portrait by Appleton as a good likeness of you.

The pose by Harris I think is very fine, and shows a deal of artistic ability, but the one fault of the same, which is no doubt due to yourself, is the cigar-

ette in the hand; a man of your distinction and ability should never be seen with a cigarette in the hand.

The posing by Cook, Parkinson and Hollinger are fine examples of portraiture, and well shows the abilities of those gentlemen.

It is my intention to visit Chicago in the near future, and trust then to meet you personally. Yours very truly,

A. G. GRAFF.

BOSTON, MASS.

Of all the interesting numbers of THE PHOTO-BEACON that I have had the pleasure of reading, I think that the present August number is the best one. "The Man Behind the Gun" is one of the most interesting articles that I have ever seen in print, and I hope that every reader will find as much of help to him in it as I have. We have always been aware of the fact that the editor had some very decided ideas of what was right or wrong in our business, but we never realized that one man could be so handled by so many representative artists in a manner to produce as in this case so many different Todds. For my part, and I think that I am no exception, I should like very much to see for myself which of the artists have really produced the best likeness. We have no difficulty in choosing which we personally prefer, but whether our choice is the best is a question that only a personal acquaintance with the subject can settle, it seems to me. Your article tells us that you told some of the artists that you were not "two faced," or "you would have brought the other one with you," and then they straightway proceeded to supply you with a new one in every city, and in some cities thought you even needed two.

Well, it has, I am sure, accomplished your purpose, and I most heartily wish that your experiment could be carried out by the editors of all the leading magazines in the field, as I feel that it would be a great help to every devotee of portraiture in the land to compare such a set of pictures of the same subject.

Then when a sitter brings us only

about one-tenth of what is necessary to the making of a good picture, we shall be in a measure able to supply some of the missing nine-tenths.

Yours very truly,

LEON C. GOODELL.

SANBORN, IOWA, Aug. 8, 1901.

F. Dundas Todd:

DEAR SIR,— I feel that I am quite well acquainted with the editor of THE PHOTO-BEACON. That was a happy

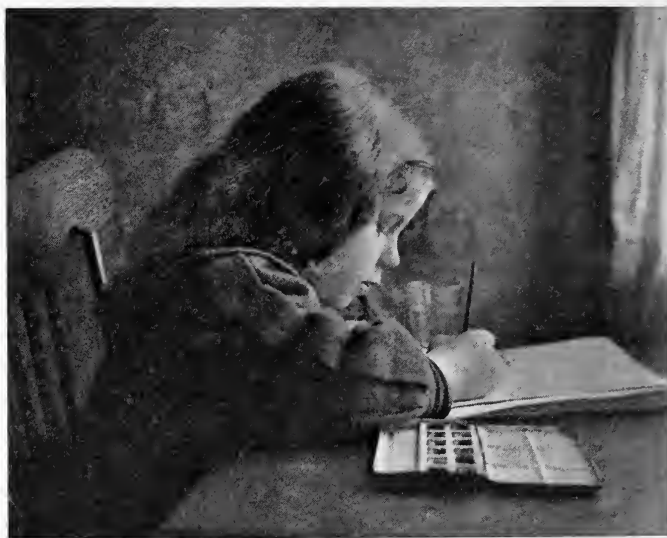
tember number. The only improvement I could suggest would be to issue weekly. Very truly,

J. D. LONG.

ROCHESTER, MINN., Aug. 6, 1901.

F. Dundas Todd:

SIR,—As I suggested at the beginning of the year, that we would like to see a picture of the editor in THE PHOTO-BEACON, I hasten to say I am quite satisfied. Your illustrated article



Negative by Dr. Eberhart,

Chicago Lawn, Ill.

SECOND PRIZE.

thought, but which is the real Todd? MacDonald and Hollinger, I take it. My friend, C. W. Longdon, did very well, but I think that Hollinger took you as you are. Anyway, these photos are worth a year's subscription, and altogether a happy idea. I have been in photography forty years, but never got so much pleasure out of a lot of photos before.

If you see my friend C. W. Longdon, will you kindly tell him to write me? The last I had from him he was in Indiana.

I am patiently waiting for the Sep-

tember number is to me highly amusing to say the least; it proves to my mind that the "Man Behind the Gun" in this case is an artist as well as something of an actor.

How a man of the Clayton Harris type (good) can be made to look as Wm. B. Dyer represents him, or C. W. Longdon or Allen Cook! Your scheme is a great success and the result is most satisfactory to me, as I have had the same idea in working with little children, and am glad to see it so clearly proven. Respectfully yours,

(MISS) ANNA D. CROSS.

PORTRAIT POSING AND LIGHTING.*

BY J. H. VANDERPOEL,

Head of the Department of Figure Drawing and Painting in the Art Institute of Chicago.

CHAPTER VIII.

A well-known Chicago photographer recently remarked that "he advises

Schools of photography exist in various parts of the country, in which the student is taught the elements of the science of photography. The course of study is short, and the student is but slightly imbued with any artistic aspirations; in fact, he enters it very much



Negative by W. M. Hollinger,

New York.

FIG. 35.

A superbly illumined head on a dark background. The whole picture is made up of four big values, which might be reduced to two, the face and collar approaching one another as does the coat and background. The splendid projection and big modeling lies in the understanding of the large surfaces or planes that make up the head, varied and accented by the projecting of brow, eyelids, nose and mouth. It is a strong piece of characterization in that it brings into evidence the big and forceful.

young men desirous of entering the profession to first acquire an appreciation and knowledge of art matters by a course of study in an art school."

* Copyright, 1901, by F. Dundas Todd.

as another goes to any business college, from a purely commercial point of view, without a thought of the artistic. It may well be asked why such a course of study as is offered in an art school is

necessary to a student of photography. Surely not to obtain skill of hand; what would he do with it? For the camera is the substitute for the artist's hand. The artist can ill spare his hand, nor can the photographer produce without his camera; their mere possession by either counts little. It is what an artist does with his hand after an equal training for years of eye and mind, and all three controlled by an artistic temperament, that gives him a high place.

So too with the photographer. It is what he accomplishes with his camera, from every point of view, scientific and artistic, that determines his place in the profession and bespeaks more than words his degree of intelligence and appreciation. No, it is not the skill of hand for which a photographic student might be sent to an art school (that is a mere incident, though it may prove useful and stand him in good stead at times), but rather that he may obtain a knowledge of the structure of the human head and figure. His whole life will be occupied in depicting it pictorially. Surely, then, a knowledge of it may rationally be looked upon as one of the means to the end—as part of the equipment, on a par with a knowledge of chemistry, optics, etc. But this is not all; he will learn about the laws of light and shade, the cause of modeling and projection, composition, color values, and, finally, tone. These requirements are so inter-related that the art student can not escape them, and who will doubt their usefulness to the photographer?

What are the first requisites in any profession? A scientific understanding of all the principles and material it embraces. Does this hold true with the photographer? It is to be feared not. His understanding of principles and materials is apt to be one-sided, relating mainly to his instrument and chemicals, for here at least he has something tangible, something that can be meted and measured. Sad to say, this grocery-counter aspect is, to some, the Alpha and Omega of the profession. This attitude is equally as degrading to science as to art, lending itself only to

adaptation and never to research and invention. But when it comes to an understanding of principles, as represented in a knowledge of the human figure, as defined through its planes and surfaces, their effect on one another and background, in expressing, modeling and projection through illumination, many evidence through their work an entire lack of ideas on the subject.

Many a photographer, like many laymen, still thinks that the highest expression in pictorial art lies in its realism in matters of detail. It is for this reason that he photographs everything sharply that it may stand out and look real (?), then he has to have recourse to that most iniquitous of all processes, retouching. In fact he photographs a collection of minute details without regard to their qualities and then hastens to eliminate such by retouching such detail as seems disagreeable, invariably terminating in harsh contrast and meaningless modeling. All the false lighting and spotted backgrounds may be used to bring out the dark and light in the head and still there is no projection, nor does it model—it is merely a lot of detail mashed together. Why is it that the common photograph does not carry beyond a few feet? Simply because the heads do not model; there is no sense of true projection; the head does not suggest planes or surfaces. There is plenty of contrast, with dark backgrounds throwing light, chalky heads out of the plane of the picture with the force of a catapult, which are equally as bad as the soft, over-retouched head that reminds us of the boneless jellyfish.

Imagine with the sculptor a beautiful head contained within a cube of marble; he needs but to clip away the superfluous stone to reach the enchanted inmate. With the mind's eye you can hew away on the planes in the head that are equivalent to the surfaces of the cube, the top of the cube standing for the top of the head, the two side surfaces for sides of the head, the other side surfaces standing for the face and back, and the under surface for the base of the back of the head and the under sur-

face of the jaw. Each of these surfaces contains its respective detail; the top of the head, or upper surface of the cube, contains the convexity of the skull, with the detail of hair; the back surface contains similar incidents, ter-

tion, the character and expression of the head, inasmuch as it contains the features. The head should be looked upon as a solid and so appreciated. It is a lack of this appreciation that causes so many photographers to indulge sub-



Negative by W. M. Hollinger,

New York.

FIG. 36.

A head in tone against a luminous background, but no less forceful in its power of projection. Note the appreciation of the third dimension from brow to brow, the breadth of the nose accented at the end, likewise of the chin. Also note the delicate modeling of the markings under the eye and alongside of the nose. Nothing is lost, but each detail forms a part of modeling larger than itself.

minating at the base in the nape of the neck; the side surfaces are alike coming forward to the ear, thence by means of the temple, cheekbone and jaw modeling into the face. The front surface, or that containing the face, presents the culminating incidents in the construc-

terfuges in lighting and false backgrounds, all to no purpose. Note the simplicity and breadth of the backgrounds in Fig. 35 and Fig. 36; both lead to great projection and robust modeling in the heads. Make this a rule — allow no half-tones in the back-

ground to vie with half-tones in the face, for just as sure as this is done there will be a loss of breadth and bigness in the modeling. When the value of the background is true the detail is properly absorbed, and the reverse when related to a false background, the detail leaving the surfaces and tones in

trasts. The same holds good with Fig. 36 of a head in tone, full of the color-value of the flesh, yet forceful in its big modeling against a luminous and equally unbroken background. In both heads there is great reserve in the use of extreme black and white, their charm both in delicacy and strength lies in the



FIG. 37.

Not devoid of good, but the minor surfaces are over-modeled and the higher lights too luminous, giving the flesh an appearance of bronze, all at the expense of big modeling.

which they are contained. Figs. 35 and 36 present great contrast in the method of procuring modeling and projection. Fig. 35 represents a luminous face, though considerably in tone, boldly relieved from a rich, dark, unbroken background. Remove the head some distance and it still carries in bold relief, and yet there are no violent con-

effective use of grays. This appreciation of the value of gray tones only comes with the photographer's artistic development, and a better understanding of the surfaces or planes in the head will soon make him realize these possibilities as an aid in giving modeling. As long as "enamel-finish" burnishing and kindred fake effects are in vogue,

appreciation of grays will be wanting, because their efficacy lies in a dead surface. In the above mentioned heads the planes are thoroughly understood (see notes).

There are three principal views of a head, the profile, three-quarter, and

in shadow, another in somewhat of a half-tone, and the top receiving the light most directly will be the most luminous. Each surface in such lighting does its share in conveying its true relation to the others and produces the effect of substance in the cube. Here the



FIG. 38.

This lacks in projection and modeling in spite of false background, light on the dark side of head and dark on light side, as well as the double lighting of the head, composed of a diffused light upon the front of the face and profile, and mixing with a predominant stronger light.

front view, with infinite variations approaching any of these or departing from them. Now, in illuminating a cube for the purpose of showing its construction and conveying the appearance of substance, the end would hardly be obtained by illuminating the visible surfaces equally. Rather should it be so lighted that one side surface shall be

parallel between the cube and a head ceases; fundamentally, each mass contains the same surfaces, but in their demarcation those in the cube are very sharply defined, while in the head they merge into one another, with the greatest variety of modeling, ranging from very angular to the most delicate transitions.

PHOTOGRAPHIC PRINTING PROCESSES.*

BY LOUIS H. HOYT.

CHAPTER IX.

EXPOSING BY ARTIFICIAL LIGHT.

Artificial lights should be well inclosed with a shutter arrangement for exposing. Fittings of this description are only necessary when large quantities of prints are to be made. I would advise the amateur to use the negative darkrooms as much as possible, replacing the ruby light with yellow or amber glass, or yellow paper or curtain linen. Postoffice paper makes a safe and pleasant light to work by. Ruby light is rather too dim to judge development by, as it progresses very rapidly, especially with the slow papers. Filling the frame, developing and so forth, may be done in the darkroom. The exposing light should be outside and should be shaded in such a manner that it can not shine into the developing room. A good rule to follow would be to imagine yourself handling slow dry-plates and work accordingly. If the darkroom is not convenient, the lights in the room should be shaded with yellow or orange material, arranged in such a manner that part of it will allow of the negative being exposed to the direct light while printing. If the worker will study the matter carefully, before commencing work, there is no reason why there should be failure of any importance. The direction sheets should be studied, not merely glanced over. The manufacturer provides them to help you succeed and the advice they contain is the result of careful study and experience.

The printing-frame is filled in the same manner as with printing-out papers. Do this in a light that you know will not affect the paper. Should you have any difficulty in distinguishing the coated side of the paper, remember that the paper curls toward the emulsion side as a general thing. The emulsion side is generally smoother than the back and with most grades of paper will be more or less glossy.

After filling the frame comes the printing or exposing and this is the very part of the process that savors of uncertainty to those who are not accustomed to working it. No matter how much experience the printer has had, if he or she attempts to work by a light which is different from the one regularly used, or with negatives of, to them, unknown printing quality, the first exposure will be purely guesswork. The result, whether good or bad, will generally be such that the next exposure will be right. It is always policy to print by the same light so that much uncertainty is avoided.

Artificial lights are steadier than daylight and not so apt to vary. For amateur work the Welsbach gaslight is undoubtedly the best. The light is steady and white enough to affect the paper rapidly and thus allow of very quick exposure. Incandescent electric lights would be my next choice, with ordinary gas as a third. The light from an ordinary oil lamp will also do for printing, but it is rather yellow and affects the paper very slowly, so that the exposures may take minutes. I have made exposures by a kerosene lamp that required twenty minutes. As an experiment I once used a paraffin candle and the negative, of only average density, required over an hour's time to print fully.

The frame should not be held too close to the light when printing or the plate may be unevenly illuminated, with the result of having much less exposure around the edges than in the center. A good general rule is to hold the frame at a distance from the light, equal to the diagonal of the frame.

All lights vary in printing quality and for this reason very short exposures are not practical unless special arrangements are made for very accurate exposing. Using an electric arc light, exposures may be made in a second or two, or even less, but even with a light strong enough to allow of doing so, it is better to shade it with ground glass or tissue paper until the exposure is lengthened to several seconds. Suppose the correct exposure from a given

* Copyright, 1901, by F. Dundas Todd.

negative is one second by a very strong light. This being so, a quarter of a second more or less would over or under time the print about twenty-five per cent, which is too great a range for most papers. On the other hand, with longer exposures, say ten seconds being just right, a full second, or even more, one way or the other, does not matter much. With the longer exposures it is possible to shade thin parts of a negative to prevent that part overexposing and developing too dark, or with a different tone from the rest of the print. Very thin negatives should not be exposed to direct light if it is very strong. A better print is secured by covering the negative with ground glass or tissue paper. Blue paper gives very good results.

Developing and developers have been written about so often that it seems that every one should be posted, but I know that there are many who are not. Before beginning the work, read the directions with the paper you are using and then use plain horse sense. Use only the best chemicals you can buy, especially the sulphite and carbonate of soda. I prefer the powdered sodas to the crystal. Do not purchase your sulphite of a druggist in bulk; do not use ordinary washing soda, because you have been told it is identical with carbonate. Buy your sodas in original packages, with a reliable maker's name and guarantee on the label.

I am not supposed to advertise any production, but I want to advise my readers to try Seed's or Mallinckrodt's guaranteed sodas and save themselves trouble.

Almost any developing agent (excepting pyro) gives good results. In giving formulæ I will quote from various manufacturers' direction sheets, because, although there are many others that are known to be good, there is a tremendous latitude in the proportion of one chemical to another. I give the Velox and Cyko formulæ to illustrate. Either of these developers work with either paper, giving good results. Personally, I prefer the Cyko formula, as I believe it gives more latitude when de-

veloping, with any paper. The Velox formula contains too much carbonate to suit my way of working, although that firm evidently get better results with the larger quantity, or they would not have published it.

The Velox formula is as follows:

Water	10 ounces
Metol	7 grains
Sodium sulphite (crystal).....	$\frac{1}{2}$ oz.
Hydroquinone	30 grains
Sodium carbonate (crys.).....	400 gr.
Ten per cent solution bromide potassium	about 10 drops

Compare this with the following Cyko formula:

Water	32 ounces
Metol	15 grains
Hydroquinone	60 grains
Sulphite soda (powdered).....	1 oz.
Carbonate soda (pow'd).....	$\frac{3}{4}$ oz.
Bromide potassium.....	4 grains

This is the developer which I find the best for any of these papers. It keeps well, does not discolor readily and is the cheapest I know of. I will give others, but this is the one supposed to be used in this demonstration.

Use pure water in making up your stock solution. I use distilled water only and the developer keeps indefinitely. Neither does it discolor much during use. This is bound to occur more or less, but pure water reduces the possibilities of its doing so, materially. The use of bromide potassium or ammonium is absolutely necessary in order to hold the whites clear and to give the image a pleasing tone. The amount given in the last formula is generally sufficient to hold the whites clear, but there may be times when more is necessary. An easy and certain method for testing the developer is to place in it a small, unexposed piece of the paper to be used and allow it to remain there for at least thirty seconds. If at the end of this time the paper is perfectly white, the developer contains enough to hold the whites in a print. Should the paper assume a motley gray appearance, the developer is not restrained enough and more bromide must be added. Add a drop for each ounce of developer in the tray and test again. One ounce of bromide dissolved in ten ounces of water,

or in that proportion, is a standard stock solution. It will keep indefinitely. As the use of bromide is so necessary in negative-making, also, there is no excuse for not having a solution on hand. There seems to be a slight misunderstanding as to what holding the whites clear means. Adding bromide will not give, say, for instance, a white sky in a print, unless the negative is dense enough in that part to hold the paper from printing. Bromide only prevents chemical fog reactions.

The use of bromide in larger quantities influences the tone of the print greatly. A larger quantity than is sufficient to hold the print clear will cause the image to be more or less of the olive-black order, according to the amount used. Very pleasing tones are secured by increasing the exposure and amount of bromide slightly. Remember that the print loses a trifle of its tone in drying. A print that develops with just a trace of green in the shadows will dry a pure black. This I consider the proper developing color, as it gives the finished print a much richer tone than those that develop pure black. It will have a less harsh appearance and the half-tones will be much better.

A FLY GETS AHEAD OF A JEW.

Last week I was making a group picture, a Jewish family—father, mother and several small children. Just as I was about to make the exposure (after having spent considerable time getting a desirable position, a fly alighted on the coat of one of the youngsters. Directly one of the older boys jumped up and, pointing to the fly, said, "Look at the fly gettin' his picture took for nodings."

WALTER TALBOT,
Schenectady, N. Y.

JAMES H. SMITH & Co., 311 Wabash avenue, Chicago, have just issued a supplement of sixty-four pages to their catalogue, which contains description of the novelties issued in the present year. Copy can be had free on request.

VOIGTLANDER AND I.*

BEING THE REMINISCENCES OF JAMES F. RYDER.

CHAPTER IX.

FOR OHIO.

That the seeing of a fine daguerreotype should pull a young enthusiast through three States to have another look at it should seem strange, I will admit; but it was the only way to satisfy a longing, and I yielded to it. I had not forgotten Mr. Johnson and his invitation to visit him if I ever went to Cleveland. I had not forgotten the beauty of the work he had shown me, it had lived in my mind as an ideal I hoped to attain. I cherished a hope that I might some day, through supreme effort and patience, find in my own work a semblance to his. I used to think if I could sweep the floors of his studio I would cheerfully do it for the privilege of seeing him work, and working with him.

Yes; I was headed for Ohio, and ultimately for Cleveland, bent upon further instructions from Mr. Johnson.

From the car windows as we went rushing through the country in its early spring dress of tender green and young shrubs, I was delighted with the valley of the Susquehanna, and the sweeps we made in rounding the curves of that beautiful river, presenting to view a new picture every few seconds, which was scarcely seen before another burst into view more striking in picturesqueness. Farms, homes and barns seemed to fly past us and out of sight rapidly. I was in a pleasant country, following the shores of a pleasant river, drinking in the beauties spread before us, enjoying every change of the rapidly growing and vanishing panorama.

While recognizing and enjoying the beauty of the Susquehanna, my mind reached out in a grasping sense to Ohio, wondering if it could be anything like this. The comparison was soon dropped, for Ohio was a new country and could not be.

From my home in central New York there were occasional instances of people emigrating to the Western States. My boyish impressions were that in

*Copyright, 1900, by James F. Ryder.

those new countries or States of Ohio, Michigan and Illinois, the ones I heard most frequent mention of, log houses, rail fences and stumps were the usual thing through the country, and that they might occasionally be seen in the villages and cities. In these earlier days the adventurous emigrants were people we had known among us, but

of my native village, who had "moved his family West," and not liking the country had returned. Sam's going was matter of general interest. I had seen the wagon in which he and his family explored the West. It was covered with heavy awning cloth, held up by hoop-like arches fastened to each side of the high side-boards of the



Negative by

James F. Ryder.

A FAMILY GROUP TAKEN IN 1850.

whom we were not likely to ever see again. Sometimes we would hear that some one had received a letter from a friend who had moved "away out West." The recipient was an envied person, and for a time an important possessor of news. Neighbors would call to inquire about these people who had moved almost out of the world; and the letter would be read and shown again and again.

I knew of Sam Van Order, a citizen

wagon, and at the back drawn together by means of a heavy puckering string, leaving a hole large enough to look through, like a back window.

Slung up by strong leather straps to the hoop arches inside, was Sam's rifle. Under the seat of the wagon was a toolbox built to the wagon, containing axe, saw, hammer, nails, strong cord, etc. Cooking utensils, dishes, bedding and clothing such as were necessary for the journey were provided.

Crotched sticks and a parallel bar on which to hang pots and kettles were a part of the outfit. Cooking and sleeping for some of the party was to be done outside the wagon. Many friends were attracted by Sam's elaborate preparations and his "gypsy wagon."

The day for departure came, the hearty good wishes of their friends were given, and Sam's "prairie schooner" set sail.

For days and weeks they journeyed and drifted in search of a satisfactory location; the fine districts he heard of and was directed to were not to his liking. Finally, one morning, he determined to resort to chance as to the direction to be taken, and told the family of his resolve. His oldest son, Jim, whom Sam called "Chim"—for Sam was a Dutchman of Pennsylvania type—was instructed by his father to stand up a pole, which, when carefully balanced was to be allowed to fall, and the direction in which it fell should be the direction taken.

After the pole was stood on end and properly poised Jim waited for the signal from his father, which came, as follows: "Chim, lean de pole a leetle torge home! All right now, Chim, let go." And they followed the pointer.

Here my thoughts took a new turn. I should pass through Ithaca and would stop over. I knew a gray-haired, invalid woman would be sitting at her window, which commanded a view of the approach to her home. She would be watching out for me. She would meet me at the door. What a blessing to a young man is a good mother! He may go out in the world, being sure the mother's heart is always reaching out in tenderness and prayer for his safety and welfare.

And now I was to be gone an indefinite period. I was going to a "far country"—to Ohio; which, to my dear mother, seemed the other side of the world, since it took her boy from her. The morning of my departure she gave me a parcel, hoping in my traveling bag there was room for it—begged me to be careful of myself, to write often, to not forget my home or my mother.

There was Jonah Sinaibaugh at the door with his hack, and no time to lose—as he was a bit late. I made a rush for the hack, not daring to look back, and away we went for the boat which was to take me down the lake to meet the cars of the New York Central Railway. I took a look at the parcel when I got on board the boat. It contained a pair of mittens and a Bible—bless her dear old heart.

I was privileged to ride on "the new rapid steamer, Simeon Dewitt." T. D. Wilcox, captain; "Alf" Goodrich, clerk; "Mart" Ryerson, pilot. She was a beauty, and Ithacans were proud of her. For some years past she has been disrespectfully classed a "tub," and is probably pulled up in a side cove of the inlet for a marine cemetery, doubtless some of her ribs sticking up out of the weeds as monuments to her former greatness and as a mark to her last resting-place. Such is life—such is death. Peace to her remains.

The Simeon Dewitt visited the prominent places on the lake, dropping off and taking on passengers as she made her landings. She gave us a pleasant ride through the Cayuga, and landed us at the station of the Auburn & Rochester Railroad. We passed through Geneva, Canandaigua, Rochester and arrived at Buffalo, where we took the steamboat America for Cleveland—no railroad west of Buffalo at that time. I was timid of making into Cleveland at once; had a feeling that I should skir-mish about and get used to Ohio; so landed in the morning at Fairport, where the Grand river enters Lake Erie, distant from Painesville three miles, which was made by hack in time for breakfast at the Burrige House. Painesville was a beautiful village, and the morning of my entrance was like a flower garden, or an orchard of peach blossoms, with which it was filled. It was the 25th of April, 1850, which, being my birthday, I have easily remembered.

The Ohio I had found was so different from the Ohio I had expected to see, I was in a way disappointed; it was as finished and up to date as the places I had been brought up in; Paines-

ville was certainly a beautiful village; in my limited travels I had seen nothing finer.

I looked about for a studio room and found a suitable one over the offices of the old Granger Furnace Company, P. P. Sandford, my landlord.

The society of this proud little town was of a high standard, quite conservative and exclusive. My patronage came slowly but surely. Here I met William H. Beard, the artist, a young man of remarkable talent, known later as the Landseer of America. His delight was in painting animals. He put souls in them; he humanized them; he dignified them. It was sometimes his pleasure to make wags of them, to make them frolic and rollicksome. A group of tippy bears, once seen, could never be forgotten. He glorified them and glorified himself in the fame he made in painting them.

He gave me his friendship, he opened my perception to a better understanding of art. My gratitude was kindled in those, my young days, and still burns faithfully.

NEW PLATE BACKINGS.

SALT LAKE CITY, UTAH,

August 20, 1901.

Editor of THE PHOTO-BEACON:

I have done some experimenting with various backings for plates, and find that a liquid soap called Johnson's Ether (or Etherial) Soap, colored with about five grains each of aurin and erythrosin to the ounce of soap, makes a very fine plate backing, and in my hands it has given better results than any of the non-halation plates. German Green Soap, which also can be had at the drug stores, will dissolve in alcohol readily, an ounce or more of the soap to the ounce of alcohol, and colored as with Johnson's Soap, also makes an equally fine backing. These backings should be put on the plate with a wide camel's-hair brush, and a box of plates can be backed in a few minutes. The backing dries in a short time, and will leave no particles of dirt in the plateholders, as is often the case with backings now on the market. The ordinary aniline dyes to be had in

the stores will also make good backings with these soaps, and I have used nigrine or black aniline with good results for the coloring matter. A swab for cleaning the soap off can easily be made with a piece of sponge nailed or screwed between two small, thin pieces of wood, so that the sponge projects an inch or so. A slightly dampened sponge will readily remove these soap backings. Kept corked in a bottle or jar, they are always ready for use.

MAYNARD BIXBY.

TAKING A CHURCH.

I was out photographing a country church not long since, surrounded as usual by the rustics, who kept their optics glued on me and the camera. Presently one ventured to say, "Taking the church, mister?" "No, I'm not," I replied, "I'm leaving it where it is," which I think settled him, for he vanished into obscurity. Try it; it has never been known to fail.

THE tyro in photography has not always the sweet sympathy from his friends that he thinks he deserves, and his rabid zeal is sometimes treated with a pitying contempt, as who should say, "He is a little bit eccentric." Now a cricket team recently paid a visit to Halton to play a match with some of the asylum inmates. After the game was over a quiet, unassuming man (a type of the amateur photographer!) asked if he might photograph them. Consent was readily given, and after some trouble the team was satisfactorily posed and the lens uncapped. After the exposure had lasted for *ten minutes* the sitters began to express their surprise at the abnormal length of the exposure. Just then, however, Nemesis in the guise of one of the asylum officials appeared, and explained that the operator was one of the resident inmates, who had a penchant for photography, but the dark slide was empty! There is a pathetic note in this experience, the more marked in that the patient's delusion that he could photograph a group is shared by many who are not under medical supervision.

DEVELOPMENT.*

CHAPTER VI.

TREATMENT FOR VARIATIONS IN EXPOSURE.

The old plan of procedure was this: When the negative showed by the rapid way in which the tones followed each other in appearing that it was overexposed, some bromide (usually bromide of potassium) was added to the developer as quickly as possible, or development was completed with a new, strong developer, with an extra amount of bromide. It is now known that this alteration of developer is practically useless *after the tones have once appeared*, as the bromide is unable to exercise its function of holding back the lower tones under these circumstances. It is true that overexposure can be compensated by using (from the commencement) a short-factor developer with plenty of bromide, as with this combination development is completed within the "holding back" stage due to the bromide.

But as overexposure is not usually known before the image is seen, and it is then too late to alter the developer, bromide has in practice very little value



FIG. 14b.

as a corrective of overexposure. There is a curious tendency to take overexposed negatives out of the developer earlier than correctly exposed ones, and this leads to the entirely mistaken idea that overexposure leads to thinness. The thinness is the result of underdevelopment. Expose a plate for say four different times (1, 2, 4, 8 seconds) by pushing in the slide between the times, and then develop it. You will be cured once for all of the "thinness" idea, for (within limits) the longer the exposure the greater will be the density of the different exposed portions. You can get almost uniform results from considerably varying exposures if you make up your mind to put up with negatives of varying density.

In Fig. 14a, for instance, the exposure was one second and it was developed with a one grain pyro developer ($\frac{1}{4}$ grain bromide) for nine times the appearance of the image. In Fig. 14b the exposure with same plate, light and stop was ten seconds, and this was also developed in the same developer for nine times appearance. The shorter exposure is much the thinner negative of the two and takes a much shorter time to print, but the gradation of the



FIG. 14a.

* Copyright, 1900, by F. Dundas Todd

two negatives is practically alike. With some plates the range of variation of exposure within which practically equal results may be attained in this way is considerably wider than one to ten. It depends upon the quality of the film, but there is always a limit below which detail is hopelessly underexposed, and another above which the upper tones are made gray and equal by overexposure. The medium be-

velopment in minutes without mental effort. For instance, an appearance of 55 seconds requires $5\frac{1}{2}$ minutes development, 60 seconds 6 minutes, and so on. If this plan be adopted, instead of altering the factor to alter contrast, the density-giving composition of the developer is altered. Pyro is the most convenient for the purpose, as simple dilution makes the required alteration. A pyro soda developer, with two grains pyro



Negative by R. H. Beebe,

Arcade, N. Y.

ENGLISH SETTER.

tween these extremes is correct exposure. Occasionally plates are met with so poor that no variation of exposure is permissible for best results.

THE SEXTUPLE METHOD.

I have advocated that the multiplying factor be varied so as to give the right contrast with the developer selected. There is, however, a special advantage in adhering to a factor of 6, because the time of appearance in seconds translates itself into the time of de-

velopment in minutes without mental effort. It will give rather too much contrast and will require diluting so as to bring it down to one and one-half or one and three-quarters grains to the ounce. If contrast in the negative is too great dilute the developer; if too little use it more concentrated.

The modern developers can not so easily be adapted to the sextuple method, as dilution does not alter the factor. Hydroquinone could be used with a

small proportion of metol added, according to the contrast required, and so could adurol. The proportion of metol required to hydroquinone would be from one-sixteenth to one-eighth.

There is a similar advantage as regards calculation in keeping to a factor of 12, and varying the developer (which might be two grains pyro without bromide, or metol-hydroquinone with a larger proportion of metol) in accordance with the principles just explained.

TIMING BY SEPARATE SLIPS.

Although in the methods I have described the plate is exposed to the dark-room light for a minimum amount of time (for it is covered up after the high light has appeared) there are certain color sensitive plates with which even such exposure to light is objectionable and which should be developed in total darkness; for the light which is regarded as "safe" with them, is too feeble to conveniently observe the appearance of the image. With such plates — now used extensively for three-color work — I have for some years timed development by the appearance of a separate exposed slip of the same brand of plate. It practically amounts to making a preliminary test of the activity of the developer before pouring it on the plate, and does away with all need of "darkroom light," a darkroom with an ordinary light which can be conveniently turned up and down being all that is necessary. The following is the procedure: Mix the developer, turn down the gas, take a trial slip out of its box and, holding it on a cycling trousers clip, dip in the developer, at once commencing to count seconds. You can probably guess how long the image is likely to appear, and a little time before this turn up the gas feebly for an instant, and notice whether the image has appeared on the slip; if not, turn down again, and repeat a few seconds later.

In this way the time of appearance is noted and multiplied by the factor (which is usually about one-third longer than those given in the table) the total time of development is known. The plate is then put in the dish, the

developer poured on in total darkness, the dish covered up and left for the calculated time (being rocked once or twice) when the plate is taken out and fixed in darkness. The slips are made by exposing a plate to a standard candle at one meter for four times the inertia of the plate. The plate is exposed in a printing-frame behind a grating made by pasting half-width lantern-slide binding diagonally on a glass plate. The exposed plate is cut into strips about 1 by $\frac{1}{2}$ inch and stored in a box for future use. If H. & D. speed numbers are marked on the box the number of seconds to expose the trial slips may be ascertained by the following formula:

$$\frac{34 \times 4}{\text{H \& D number}}$$

This method can be used for any plate besides color sensitive ones, and is theoretically more perfect than the previously described plan of timing by the appearance of the high light on the plate itself, because it gives the same development to over and under exposure (which is correct) and does away with any variation in the intensity of the high light. The theoretical defects of the previous plan are, however, very slight in practice.

The timing slips are not obtainable commercially at present.

QUANTITY OF DEVELOPER.

A grain of developing salt can reduce or develop a certain amount of image, and when it has done this its power is exhausted. Moreover, a certain amount of bromide is set free in development and added to the solution. A developer is therefore in a totally different condition after developing a negative. The time of appearance makes approximate allowance for the altered energy if a developer is used for a second time. But the plan is not one I should advise as a rule. Modern developers may be used a second time if it is done immediately; pyro developers should never be used a second time. It is also bad economy to stint the quantity of a developer for each plate. There is a tradition in England that one ounce is enough for a $3\frac{1}{4}$

by $4\frac{1}{4}$ plate and two ounces for a 5 by 7. I have always found this quantity to be quite insufficient to make certain of the plate being well covered, half as much again being in my experience the minimum safe quantity. Not less than $2\frac{1}{2}$ ounces of developer should be used for a 4 by 5 plate. It must also be remembered that the principles of development which I have propounded presume that an ample sufficiency of developing salt

BEGINNERS' TROUBLES.

CHAPTER IX.

ENLARGING NEGATIVES AND ENLARGED NEGATIVES.

I have received several inquiries in regard to the different processes of enlarging, and it may be well to touch briefly on them all.

The most simple is to make an enlarged copy from a direct print. We



Negative by E. W. Remington,

Hion, N. Y.

OH, FOR A MAN!

(THIRD PRIZE.)

is present. It is possible to use a developer so weak in the salt that when a feeble stage in contrast is gained there is no developing energy left for more work, and a feeble negative results, however long the plate is left in. With dilute developers the bulk used should be increased proportionately.

ALFRED WATKINS.

used to be told that a glossy print would make the best copy, but I think that is a doubtful question. I have never tested it sufficiently to deny the claim, but I have made as good copies from mat surface collodion paper as I ever did from a glossy print. By this method, however, it is not practicable to enlarge more than about one-fourth

of the original size of the print. A cabinet photograph, if a good one, can generally be enlarged to a 5 by 7 without serious difficulty.

Another method is to enlarge the negative itself. This is a method that I never tried but once, then only for an experiment; but if you want to enlarge some of your negatives it is worth trying. The gelatin film is stripped from the glass or celluloid support and placed in water till it swells to the required size. It is then lifted out upon a clean glass that has previously been given a coat of gelatin and when dry it is ready to print from.

To strip the film from the glass Hammer recommends immersing the plate in water, to each ounce of which has been added a few drops of hydrofluoric acid. The formula that I used is one that was published in one of Seed's Manuals. Here it is: Soak the plate for one hour in a bath composed of one dram of sodium fluoride to the ounce of water. Then immerse without washing in:

Water7 ounces
Sulphuric acid1 dram

When the film begins to loosen it may be rolled, but must not be pulled away from the support. The coating for the plate to be used as a final support is made as follows:

Gelatin1 ounce
Water6 ounces
Glycerin3 drams

This coating is poured on the plate while warm, and after it sets and dries it is ready to receive the enlarged film. By this method negatives may be enlarged about one-third.

But the best way to make a large negative from a small one is by the old-fashioned method of making a transparency from the original negative, and the enlarged negative from that. This method I will describe in detail.

We will suppose that it is desired to make an 8 by 10 negative from a 4 by 5. Provide a good wide board as long as some north window at which you can work, and cut a hole in the center of it just a little smaller than the negative.

On one side of this board paste a sheet of tissue paper over the hole; on the other side drive two tacks near the upper and two near the lower edge of the opening so that the negative may be slid in between them and held in position by the tack-heads. That is all the special apparatus necessary. The board is placed on the window sill, where it may be held by leaning something against it, with the tissue on the outside. Then the negative is slipped into position and the blind drawn down to the top of the board. If there are any other windows in the room the blinds should be drawn on them also, so as to exclude from the room, as far as possible, all light that does not come through the negative. Now plant your camera squarely in front of the negative and take a photograph of it just as you would in making a copy. The result will, of course, be a positive, and it may be made on a 4 by 5 plate; or, if you prefer to use a larger plate, the enlarging can be divided between the two operations of making the positive and the negative. The latter plan entails a slight additional expense for the larger plate, but if the subject is appropriate the positive may be framed and used as a window transparency, so that it is not entirely lost. It will be useless for me to attempt to tell you how long to expose the plate. That will depend upon the light, density of the negative, stop used, and times of enlargement. I judge by the illumination of the image on the ground glass, and with the latitude that the modern dry-plates give, I have no trouble. If you are in doubt about the exposure required, and do not want to risk the loss of two or three plates trying it, just carefully note the illumination on the ground glass and take the camera outside. Focus on any convenient object and stop down the lens till you have an illumination similar to the one the negative gave you. Then consult your exposure tables and when you find the exposure that subject, light and stop calls for, you will know how long to expose for the positive. It is best to give full time and trust to a strong developer, strongly re-

strained, to bring out the contrast. When the positive is finished it may be doctored or retouched if necessary, and it is ready to take the place of the negative from which it was made. The enlarged negative is made from this in precisely the same manner that it was made from the small negative.

This method of enlarging is generally quite satisfactory; but better results will be obtained by enlarging direct upon bromide paper. Bromide enlarging is by no means as difficult as some amateurs suppose. Unless a large number of prints are to be made from one negative it will be less trouble to



Negative by A. J. Swanson,

Faribault, Minn.

OH, FOR A WIFE!

make them direct upon bromide paper than to make an enlarged negative. But my space is exhausted; so I must leave that subject till next month.

J. EDGAR ROSS.

ON CERTAIN SKIN MARKINGS CAUSED BY LIGHTNING.

Very numerous examples might be given of the wonderful powers which lightning was once reputed to exhibit, but it is with its so-called photographic action that this article is concerned. The dazzling electric flash was held to possess the property of reproducing accurately upon the clothes or skin of its victims images of the surrounding objects, and in the works of the older writers many instances of the kind are given. These representations seem to have been of the most diverse kind. Trees are most generally described; but in one case a cow, in another a horseshoe, in a third a piece of furniture, and in a fourth the whole surrounding landscape is mentioned. Dr. Stricker, of Frankfort, quotes from Raspail the case of a boy who, while climbing a tree for a bird's nest, was struck by lightning, and showed afterward upon his breast a complete picture of the tree, with the nest upon one of its branches.

ABSENCE OF PHOTOGRAPHIC CONDITIONS.

In those cases in which trees are stated to have been photographed, the tree-like markings which are sometimes found upon the surface of the bodies of those struck by lightning afford some excuse for the assertion, but no photographer would lend credence to such a statement. An objection to be urged against this, viz., that the markings on the skin are photographic reproductions of neighboring objects, is that the photographic conditions necessary for the formation and retention of an image, that is to say, a lens and a light sensitive surface, are absent. But if, for the sake of hypothesis, we admit that an unknown law

exists in virtue of which electric fluid in passing from a thundercloud to the earth so rarifies the air, that the atmosphere, by the laws of reflection and refraction, depicts objects as clearly as a lens, e. g., as in a mirage; and if we further admit that the cutaneous surface of the human body is temporarily affected in such a manner that it becomes sensitive to light, and can thus receive and retain impressions of objects in the vicinity, granting all this, even then the argument is inconclusive, since the resultant image is a *positive*. He knows that it can not be a photograph, since it is a *positive*, or *dark* picture on a light ground, while if it had been formed according to the chemical and optical laws essential to the production of the photographic shadow of a tree, the picture would have been a negative, showing light on a dark ground. With regard to these marks, it is not surprising that, owing to the rarity of their occurrence, and owing to the tissue of fable and exaggeration which has so long surrounded the subject, many people are skeptical as to their existence. There are, however, several cases on record in which fern-like ramifications have been described by qualified scientific observers. Dr. Stricker, in the article already mentioned, in which he gives statistics of more than thirty thunderstorms, during which many people were struck, quotes three such cases. Rindfleisch describes the case of a man who was killed by lightning on May 31, 1862. Near the left axilla was a deep wound, and stretching thence down the left side a series of smaller wounds. Beginning at these wounds, and extending across the surface of the abdomen and down the right thigh, were tree-like ramified lines.

WHY ONLY TREES?

Dr. Stricker also quotes from Mayer the case of two soldiers who were struck by lightning in the year 1785. The first had the hair of the head burned, and showed, passing down the whole length of the back, a well-marked thick red line, with many ram-

ified branches. The three best marked of these side lines passed round the right side of the body to the shoulder, the breast, and the hip. Both thighs were untouched, but behind the left knee a star-like mark was found, and the back of the right leg showed branching lines. The second displayed the effects of lightning chiefly upon the right shoulder and leg.

STARS.

Questions as to the causation of these markings are, from the nature of

the skin itself, since bodies capable of showing electricity show the more the harder they are rubbed.

"Further, the heat of the day must have exerted a powerful influence. Nutrition, and probably also other processes, must have been affected by the thunderstorm, and these causes acting together produce an increased movement of the fluids of the body, and more friction between them and the walls of their vessels. Now, on account of the preponderance of negative electricity upon the surface of sweat-



Negative by F. E. Foster,

Iowa Falls, Iowa.

THE EVENING MEAL.

the subject, very complicated. Putting aside the photographic theory altogether, one or two of the authors already mentioned adopt different views. Mayer gives the following explanation of the case of the two soldiers: "The cause of the formation of those star-like appearances, which lightning, by its action on the blood, leaves upon the skin of those struck, is to be found in the negative electricity which was heaped up upon the surface of the bodies of the two men. In addition, the blood moving in the vessels lying immediately under the skin must of necessity have been more electric than

ing bodies, the positive electricity is so quickly taken up that it is very difficult to make such bodies positively electric, so the cause seems to me to be that the negative element draws the positive greedily to it, and that the most negatively charged blood in the vessels of the skin, exercising the most influence, is destroyed, and those star-like *electrophor figures* must of necessity result."

A PARALLEL PRODUCED.

Professor Pfafe, of Stuttgart, quoted by Stricker, adopts a somewhat similar theory, and compares these

tree-like markings to the phenomenon known as *Lichtenberg's figures*. These figures are interesting in this connection as demonstrating the distribution of the electric discharge over a non-conducting surface. They are produced in the following manner: A charge of positive electricity from a Leyden jar is passed through a needle to the surface of a glass plate, then, on the current being discontinued, when the plate is dusted with lycopodium powder, a branched star-like or tree-like figure is produced, owing to the peculiar distribution of the powder upon the surface. In this experiment the glass plate is supposed to have become negatively electrified, while the positive discharge from the Leyden jar corresponds to the lightning flash.

Rindfleisch points out that the markings in no way correspond to the course of the vessels of the region which they occupy. Stricker offers another explanation of this peculiar phenomenon, and refers to the laws relating to the conduction of lightning through the air. He points out that "the air during a thunderstorm contains a mixture of cold and warm, dry and moist masses, the one set easily combustible, the other with difficulty so," and that "the electric discharge passes always through the easier medium, not taking the most direct way to the earth." Applying this law to the passage of the electric fluid over the human body, he states, after Reimarius, the two following propositions:

(I.) "A breaking up of the discharge takes place when it is forced to take its way through a bad conductor."

(II.) "At the points where the lightning strikes and leaves the body the injuries are most severe, since there the free spreading of the discharge is most hindered."

TWO POINTS OF VIEW.

It seems necessary to study these wonderful appearances from two points of view, viz., to consider their position and direction in connection with the peculiarities of the electric

discharge, and to refer to an examination of the tissues of the body struck, for an explanation of their intimate constitution. In the theories already adduced the view which refers the causation to an injection of the vessels does not really join issue with either of the electric explanations which follow it, but should be taken in conjunction with them.

With regard to the manner in which the electric current passes over the surface of the body, the proposition which Stricker lays down seems reasonable, viz., that it tends to divide in a branching, more especially if conduction be hindered, or if the current be weak. This accords with the appearance of that form of discharge from an electric machine known as the *brush discharge*, in which the spark, passing through the air, takes the form of an arborescent figure without leaves. Now, as to the markings themselves, from their red color they would appear to owe their presence to the blood immediately under the surface, and not to a charring or blackening of the skin. In this respect they differ markedly from the blackened surfaces sometimes seen, on which a stronger portion of the electric current has fallen. The arguments of Rindfleisch prove that since the marks do not correspond with the direction of the vessels of the regions which they occupy, they can not bear any reference to the larger arteries or veins. One is therefore led to believe that these appearances owe their presence to a change in the blood of the capillary network lying immediately under the surface, and since a simple injection of these would lead to a general redness, rather than to well-defined lines, that the change induced is caused by *coagulation of the blood in the capillaries*.

AN OBJECTION ANSWERED.

The objection may be raised in answer to this argument that the blood of persons killed by lightning seldom or never coagulates, usually being found fluid in the blood vessels after death. But it has been found by ex-

periment that when an electric current was passed through blood contained in small vessels, the temperature not being kept down by artificial means,

iment would be perfectly realized in the case of the capillary circulation. In such an intercommunicating network even large tracts of the vessels might



Negative by

Howard W. Foote.

THE YOUNG PRETENDER.

coagulation ensued; coagulation of blood is not necessarily dependent on the presence of fibrin, and in this instance would probably be caused by the coagulation of albumen by heat. The conditions necessary to this exper-

be filled with blood clot without causing any appreciable alteration in the vitality of the part or in the surrounding circulation; each "tendrill" of the arborescent figure corresponding not to a single capillary, but to many.

CONCLUSIONS.

To sum up, we come to the conclusion that the lightning has broken up into branches upon the surface of the skin, and that a coagulation of the blood in the capillaries has taken place *below* the skin, following closely the distribution of the electric fire upon the surface.

In the compilation of this article the writer has been aided by the researches made by Dr. Mackay some years ago on this extremely interesting subject, and if he has helped to destroy the legend of the "photographic action" of lightning, feels that the time spent in writing it has been usefully occupied.—*The Amateur Photographer*.

ERNEST C. FINCHAM, M.R.C.S., Eng.,
L.R.C.P., Lond.

TO PARENTS AND GUARDIANS.

"Good morning, Mr. Darkroom. I have not come to get my likeness taken, I have not been taken since I was married thirty-five years ago. No, you won't catch me spending my money on such frivolity. I want to talk to you about my son Matthew; he's the third. You know his brother Ted, at Smith's, the butcher, and his other brother, Charles at Robinson's, the confectioner. You see poor Matt is not gifted with a very brilliant intellect, takes after my wife's brother; and his lameness, too, is a great drawback to the poor fellow. If he had only been a bit sharper we should have made a schoolmaster of him, but as he is rather off here"—my talkative visitor tapped his hand on his forehead—"as he is not very sharp we have decided to make a *photographer of him*. That's my errand this morning." The italics are mine, reader, for the good man did not emphasize these words, and did not seem to be aware that they expressed anything but the common-sense reasoning of a parent who was afflicted with an imbecile son. Then my visitor continued to ask on what terms I would take his weak-minded son as an apprentice.

Reader, you perhaps think the above

is amusing; so did the boy who threw stones at the frogs. I thought, and still think, it is very serious, for it gives us that "gift" we all pray for, namely, the power "to see ourselves as others see us."

There may be, for anything I know, photographers who think no small beer of themselves, and who express their thoughts in their gait, so much so that people are inclined to ask of them, as the man did in *Punch*, "I beg your pardon, sir; but are you anybody in particular?" But most of us are anything but high-minded, knowing that only those who are "a bit off here" are made into photographers.

When we consider our work seriously, as we do, for instance, when we are laid on our backs in illness, we can not help wondering what attractions photography had for us when young, that we should give the rest of our lives to it. Certainly the prospect of having to stand in front of an evil-smelling sink, with our hands in poisonous chemicals in a darkroom with a dimmed red light in our eyes, for the best part of every summer's day, did not enter into our youthful calculations. Neither did we think that we should have to spend the greater part of our evenings turning the handle of a heavy hot-plate rolling machine, that the prints made one day may have an everlasting polish the next. Neither did we think that our nights would have to be spent in toning and washing our prints if we wished them to be permanent.

After all, my visitor was quite right in wishing to make his imbecile son a photographer, for he would not feel the depressing drudgery of a photographer's life, neither would he feel the countless pinpricks which his customers and the world generally sticks in his hide. It is only a pinprick when a young photographer, wishing to build a photographic studio in a strange town, finds that he can not persuade any property owner to let him put up such an objectionable building as a studio. Yet no one can blame the property owner, for those who have any knowledge of the photographer as a business man

know that his ways of life are peculiar. These peculiarities are not inborn, but are the outcome of the strange relations

tobacco. The people who buy tea and tobacco may be divided into two classes, those who are particular that they



Negative by Louis Fleckenstein,

Faribault, Minn.

THE BALLET DANCER.

which exist between him and his customers. Making photographs is a very different business from selling tea or

always get the same blend, and those who are not particular, and who could not tell one kind from another. With

these two classes of customers the grocer or tobacconist gets rid of all his wares. Now the photographer's customers do not resemble either of these classes; all they want is something fresh, and as the inventive genius of the photographer is not as great as that of the milliner or dealer in fancy stationery, he has only one way of pleasing his patrons, that is, he has to change himself. This he does by going from one studio to another, changing his name at each move. No wonder, then, landlords shake their heads when a photographer wishes to be a tenant. Any photographer who finds his customers falling off can get them all back in a month by shaving off his whiskers, buying a new suit of clothes, and changing his name.

A painter who has made a reputation finds his name worth so many thousands a year to him. It is doubtful if the reputation of a single photographer in the world has got beyond his own town; that he may be known to his brother photographers is outside the present question. Ask any traveled educated man if he knows the work of Rejlander, H. P. Robinson, Craig Annan, Barnett, Hollyer. No, he has never heard of one of them. Therefore we may say that reputations made by photographers are valueless. That is, they do not bring in any more customers. Then there is little difference in the prices of photographers. The man in Regent street, perhaps, charges four times the price of the man in Whitechapel, but as his expenses are more than four times that of his more easterly brother, his profits are no greater. If there is any difference in the position of the two, the Eastender has the advantage, for his customers pay cash, while the Westender makes bad debts.

In an able article by W. R. Bland in a recent number of the *Amateur Photographer*, it was stated that the low position held by photography was owing to the want of self-respect on the part of its followers, and to the number of vulgar photographs made. I am afraid, however, that there is another reason which has more to do with the poor position held by pho-

tography, namely, the declining sense of the people for the appreciation of what is beautiful. I was in a market gardener's garden near Whitby the other day; on the rubbish heap were a lot of azaleas in flower. On my inquiring why they had been thrown out, I was told that the gardener had thrown them away because he could not sell them; he had potted them, flowered them, and had taken them to market, but could not sell them even for one penny each. Twenty or thirty years ago working men, and people in every position, took a pride in their gardens, and market gardeners and florists prospered; now, one has only to look round to see that only a few seem to take any delight in flowers and plants, and what were once nurseries for flowers have become wildernesses full of weeds. There is a much closer connection between the love of flowers and the appreciation of good photographs than many think. Until parents and guardians see that florists and nurserymen flourish again, as they did fifty, or even thirty, years ago, let them not make photographers of their charges.—*The Amateur Photographer*.
F. M. SUTCLIFFE.

THE WITCH OF KODAKERY.

Everybody in the photographic world knows the Kodak girl, the one you see in all the ads. She is the companion picture to the one of the Puritan maid trudging to church with the Bible in her hand. Times have changed since then, so in place of the sober cap we find the bunch of flowers and a parasol, the demure look fixed on the ground is replaced with a glance that surveys the world with confidence, calmness and serenity. The Bible suggested another realm, the kodak indicates beauty and interest in this mundane sphere.

The Puritan maid was embalmed in verse, and so has been the Kodak girl. The Eastman Kodak Company has collected the numbers concerning the latter in a booklet, which can be had for the asking. Very rarely are the pages of this magazine enlivened with a little bit

of verse, so with due apologies to the Eastman Kodak Company, we transfer a few of the poems to our columns.

AN APPRECIATION.

We're acquainted with McKinley from his picture,

With Uncle Mark and Teddy also thus,
Bryan's most familiar, and in caric'ture,
Croker, Platt and Hill are known to us.
We readers of the press have wide acquaintance,

There's a mystery surrounds her sweet gentility,

Unfathomable, charming and complete.
And the glamour of her unapproachability
But brings us yet more quickly to her feet.
Those who can say they're blind to her good features —

Ah! they are nothing less than bloodless cads!

She's easily the queen of human creatures,
The rose-crowned "Lady Dainty" of the ads.

—Charles L. Chandler, Cornell, '01.



Negative by Mrs. W. S. Bailey,

GOLD DIGGERS.

Lakewood, Ohio.

With Melba, Bernhardt, Mansfield and their fads,
But the one we know the best has but lately joined the rest,
And she trips — Kodak in hand — among the ads.

We have been the willing slaves of Ada Rehan,
With Maude Adams — Julia Marlowe — sympathized.
Blanche Bates would charm a savage Carib-bean!

Aye, we've been Ethel Barrymore-alized.
But, granting to these named a warm affection,

We yet must needs, if we are honest lads,
Confess, down in our hearts, a predilection
For the beauty with the Kodak, in the ads.

TO THE KODAK GIRL.

Oh, sweet, capricious, engaging Phyllis,
We bow to thee, whate'er thy will is.
Though you Kodak the faces of us, who kneel

To offer ourselves for woe or for weal,
Though you *capture* our heart, you *take* but our picture;
(For, alas, you care not for mankind as a fixture.)

Though a positive negative is all that you deign us,
We adore, nay we worship, the girl who has slain us.

Could you Kodak machine but shoot an X-Ray
Through our cardiac region, it would there display

An arrow-pierced heart—a soul all awhirl,
A life that's bound up in the Kodakery Girl.
—“A Subject,” in the *Professional Photographer*.

THE WITCHERY OF KODAKERY.

No wonder where the Kodak is
A witchery is nigh;
For, see! the witch approaches,
With enchantment in her eye.
And I feel the luring magic
Of each dainty, rose-crowned curl
As I view the pictured features
Of the
Ko-
dak
Girl.

With the neatest little,
Fleetest little,
Sweetest little glance
From sparkling eyes that under
Shyly drooping lashes dance,
She comes—a breath of summer
When the finest flowers unfurl!
Oh, the airy, fairy beauty
Of the
Ko-
dak
Girl!

I can read an incantation
On the full and curving lips;
I can feel her spell about me
As across the page she trips;
And I vow my sole ambition
Through life's gay and giddy whirl
Is just to press the button
For the
Ko-
dak
Girl.

Oh, that hazy little,
Daisy little,
Lazy little glance!
It sends its shaft as surely
As Achilles did his lance!
It brings an invitation
From the fields where breezes purr
'Round the happy, snappy figure
Of the
Ko-
dak
Girl.

—James Barrett Kirk, in *Profitable Advertising*.

EDITORIAL TABLE.

FROM THE COLOPLATIN COMPANY, Newton, New Jersey, we have received a sample of its new coloplatin matt surface paper. We have given it a good trial and in our hands it works very satisfactorily and yields excellent results.

“HALATION AND HOW TO CONQUER IT,” is the title of a booklet that we have received from the Photographic Materials Company, 100 Lake street, Chicago. A copy can be had for the asking.

“HALATION, WHAT IT IS AND HOW TO PREVENT IT,” is the title of a booklet issued by Edward W. Newcomb, Bible House, New York city, New York. Its purpose is well named in its title.

THE ROTOGRAPH COMPANY, 101 Fifth avenue, New York, favors us with a copy of the first issue of the *Bromide Monthly*, which, as its name implies, is devoted particularly to telling how to handle bromide papers, both of the contact and enlarging types. Copy will be sent free for the asking.

FROM THE NEW YORK PHOTOGRAPHIC COMPANY, 159 West Eightieth street, New York, we have received samples of its “Gray Day Developer” and “Oxpo” reducer. With a bottle of the former we developed eight rolls of No. 4 cartridge kodak films, being ninety-six negatives in all, and found that it gave excellent results. The subjects were very varied and all snap-shots, and we can therefore recommend this as a very excellent developer. Our experience with the reducer has been very limited, but we find that it works very well.

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PASSING OF THE STORM.

W. J. Street, San Francisco, Cal.

Chicago Salon.

THE PHOTO-BEACON.

EDITED BY F. DUNDAS TQDD.

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VOL. XIII.

OCTOBER, 1901.

No. 10.

SOUVENIR OF THE SECOND CHICAGO PHOTOGRAPHIC SALON.

We have selected one picture by each of the exhibitors in the salon, fifty-eight in all, had them reproduced and printed on heavy enameled paper, and handsomely bound in portfolio style. This is the only opportunity photographic art lovers will have of securing the best pictures of the year in such a form, and at the low price of 50 cents the small edition ought to be quickly disposed of. That our readers may have an idea of the character of the pictures, we reprint a few of them in this issue.

We have a few copies of last year's souvenir on hand at the same price. Such books, especially when in limited editions, as these are, become very valuable in a few years' time, as they simply can not be duplicated. All the cuts of the first edition, which numbered only six hundred, have been destroyed, so that the possessors of this unique collection of fine photographs are to be envied.

THE SECOND CHICAGO PHOTO- GRAPHIC SALON.

By the time this issue gets into the hands of its readers the second photographic salon in connection with the Chicago Society of Amateur Photographers will be open to the public in the rooms of the Art Institute, Chicago. I have had the good fortune to examine the selected pictures very carefully, and at the present moment I am in a position to speak in a general way of the

quality of the pictures accepted by the jury of selection. The latter, it will be remembered, was chosen with great care and after long consideration, as the committee of management desired it to be composed of a body of men whose opinion would be readily accepted by all lovers of the pictorial side of photography. It was felt that an exhibition of this character could not be too catholic, that the purpose of a salon ought to be to encourage the development of photography as an art in the widest sense of the word, not merely one particular phase of it. It might be supposed by some that the result of so liberal an idea would be to open the gates so wide that a flood of commonplace pictures would be hung on the walls, but the facts of the case show how untenable is such an opinion, for out of close on one thousand prints submitted to the jury, only one hundred and twenty-nine were accepted.

Those privileged to see the pictures after the jury had completed their labors were unanimous in expressing the opinion that the second salon, in the quality of work hung, will be found to be far ahead of the first, and I am convinced that this view will be endorsed by every one who has the good fortune to examine the prints. The most noticeable feature, to my mind, of the present exhibition, will be the conspicuous absence of what has been termed rather irreverently freak photography. This, seemingly, has had its day, and with the overthrow of the little clique who posed as the dictators

in photographic art matters in this country, we are at least free from the single-mindedness—nay, narrow-mindedness—that characterized their actions.

Any one who enters the salon expecting to find examples of the work of the judges of last year is doomed to disappointment. But one has had the courtesy to contribute. I would be sorry to give the opinion that this arises from pique on the part of these gentlemen, although appearances are against them, while even negligence is not to my mind a decent excuse. The case of Mr. Clarence H. White is, to me, a particularly flagrant one. For several years this gentleman has been estimated and posed as a leader in photographic art, has again and again served on juries of selection at various photographic salons, but never once has he submitted his own work for scrutiny before a board of salon judges. In the past his excuse may have been the lack of opportunity, but here the occasion presented itself, and he balked. Why? I think the photographic world is entitled to an answer. Without doubt, Mr. White is familiar with the sacred text which advises "judge not that ye be not judged," but since submission to judgment in photographic matters is a purely voluntary act, this maxim has no terror for him.

Last year Chicago was glad to find so many frames contributed to its salon from New York, and it is cause for wonderment that practically none are from that city today. I do not want to be uncharitable; nevertheless, it would almost seem as if the aim was to "queer" the exhibition here. If so, the effort is a miserable failure, and Chicago is evidently able to get along without New York, nay, more, is doing very nicely, thank you.

F. DUNDAS TODD.

PICTORIAL COMPETITION NO. 40.

For a number of years, in making up the list of competition subjects, I have added two for a special purpose, these being branch of a tree without leaves and branch of a tree with leaves. My

desire was to interest my readers in the decorative side of the art, and for a while the results were very far from being satisfying. Most of the competitors had mind for the photographic excellence alone. The prints received showed great technical skill, but decoratively were worthless. This year, in the branch of a tree without leaves, one very good print turned up and I saw at last the germ was working. The present competition, while not at all satisfactory, is a great big advance on the one of a few months ago, and demonstrates very plainly that at length the readers are becoming interested in composition for its own sake. The first prize picture is a beauty. The material used is of the very simplest kind, but the area of the print is broken up by means of the spray and leaves into very pleasing minor spaces, all of which form a harmonious whole. I would urge my readers to take up this phase of photography very seriously, and I can assure them that they can learn more about composition from it than from any other thing they can tackle. Again, they do not need to wander far afield for their subjects, as they can be found at their very door.

The jury made the following awards:

First prize—R. Bishop, 95 Irving street, Jersey City, New Jersey.

Second prize—E. K. Ehrman, Oak Park, Illinois.

Third prize—Gabriel Moulin, 110 Sutter street, San Francisco, California.

PARTICULARS OF WINNING PICTURES.

First prize—Made August, 1901, inside room, on Cramer instantaneous isochromatic plate, with stop f 32, exposure one minute. Printed on W. & C. platinum paper.

Second prize—Made August, 1901, inside room, on Cramer medium isochromatic plate, stop No. 32, exposure 90 seconds. Printed on Cyko mat.

Third prize—Made mid-day, August, in shadow of building, on Seed 26 X plate, stop No. 30, exposure 10 seconds. Printed on Solio paper.

FUTURE COMPETITIONS.

Competition No. 42—Snap-shot pictures. Closes October 31.



HILDEGARDE.

Francis Watts Lee, Jamaica Plains, Mass.

Chicago Salon.

Competition No. 43 — Landscapes.
Closes November 30.

Competition No. 44 — Flower pictures.
Closes December 31.

RULES.

1. There is no restriction as to the number of pictures to be sent in. On the print there should be written the title and sender's name and address, but nothing else. Accompanying, a letter or postcard should be sent us, giving full particulars of date, light, plate, stop and exposure given; also the printing process.

2. Mark outside of package with number of competition. Ordinary letter rate must be paid where descriptive matter accompany prints.

3. Prints are not returnable.

PRIZES.

First — Books to the value of \$5.

Second — Books to the value of \$2.50.

Third — Books to the value of \$1.

Any books, on any subject, or if preferred, any article we can buy in Chicago.

WHAT ONE OF THE JURORS THINKS OF CHICAGO'S SECOND PHOTO- GRAPHIC SALON.

In a comprehensive and also an analytical view of the pictures to be shown at the coming second Chicago salon no one will be more concerned or interested than the jury who passed upon the pictures submitted. The jury was in no wise instructed regarding its deliberations other than that its decisions should be made on the basis of pictorial excellence. The Chicago Society desired no bias or concession to prevail that would tend to lower standards already established by the salons previously held in Philadelphia and Chicago. It is only through the prevalence of high standards that such exhibitions best serve their purpose and exert the most beneficial influence. The term salon bespeaks a show of general superior excellence and is not of the spirit of a general exhibition. It entails upon the prospective exhibitor special study, diligence, care and preparation in the making of his pictures, for they are to meet disinterested, impartial and critical judgment. It goes without saying that in the exercise of this judgment errors may be made, apparent injustice may be done. The local workers, where a salon is held, enjoy the advantage of being able to, in a measure, satisfy themselves on such points *à propos* of the rejected pictures. In examining my own I believe they were not accepted for good reasons. In one I found that I had treated an abstract subject in a way more material than I realized when I made the picture. In others I found lack of qualities necessary in the serious salon pictures.

The shortcomings of many of the landscapes offered appeared to be unpleasant spacing and arrangement, lack of feeling and quality, false rendering of the sunlight and shadow—the unsatisfactory handling of much good material, and the lack of study of conditions. It is a most difficult line of work, but the success of some of the pictures showed what can be attained. In portrait work there was found wanting much of the pictorial quality to be

derived from skilful spacing, and also a lack of originality and unconventionality. In genre pictures, particularly those made with interior settings, there was in many a notable absence of abstract qualities to share the responsibility of figure and accessory. Figure or



Gabriel Moulin,

San Francisco, Cal.

THIRD PRIZE.

accessory were accorded too great importance instead of a handling of both elements in such a way as to present a unity of human interest. In the matter of framing there was found much room for improvement. Simplicity, harmony and tasteful contrast can not be given too much attention. Nothing in the final dress of the picture should be allowed to detract from its attractiveness—everything should be done to enhance it.

The judging of the pictures was based solely on their pictorial merits. Great care was taken to do the work in the most serious way, with the end in view of hanging on the walls work thoroughly endorsed as possessing salon merit—that would cause the salon of 1901 to be a credit to the Chicago Society of Amateurs and to the Art Institute of Chicago.

WILLIAM B. DYER.

MY EXPERIENCE IN TWELVE STUDIOS

(Address at the National Convention by F. Dundas Todd.)

Mr. President, Ladies and Gentlemen: It is with rather mixed feelings that I stand up to say a few words to you at the present time. Detroit brings

back to me a great many very pleasant memories. It was in Detroit, in the year 1895, that I was first allowed to address the National Convention of the Photographers' Association of America. I will never forget that first speech. At the end of the meeting, as I wan-



A FOGGY DAY.

Oscar Maurer, San Francisco, Cal.

Chicago Salon.

dered to the end of the hall, one photographer came up to me and said, "Mr. Todd, I want to introduce myself. My name is Somers, of Memphis, Tennessee, and I want to tell you that I like to hear that Scotch tongue of yours." I felt a little bit good, you know. I said, "Yes?" He says, "Yes, Mr. Todd; I am rather a bashful man; I like to stand at the back of the hall here, and you are the only man I can hear." I did not feel so good after that. The following day I had a little fight with one or two members of the convention over the proposition to permit editors to go into that meeting without paying \$2, on condition that they were good. I could not stand that condition at all; I opposed it. After the meeting was over another photographer came up, and he says, "Todd, you are a gigantic ass." I had to admit that in all probability that was true. The following day, in wandering through the art gallery looking at the pictures, I saw pictures by one man that excited great admiration in me, and I could not keep my mouth shut; I had to tell all the world what a fine thing I had found, and the photographers gathered about me, and while I was excitedly telling all about this fine collection, a man came rushing into the crowd like a flying wedge, took me to one side and said, "Todd, you are crazy, though if you keep your mouth shut the boys won't know it." [A voice: "How did he find that out?"] I turned to him and said, "I will make you crazy within a year." And I think I did.

Another picture comes to me of the Detroit Convention of 1895. Those photographs that I first spoke of as interesting me so strongly made me wish to meet the man that had made them, and I told everybody, "If you see that man, bring him to me." It was not twenty-four hours till I met him. Then he came up to me and said, "I believe you wanted to see me." I said, "Is your name Hollinger?" He said, "Yes." I said, "I want to tell you that your work has given me more pleasure than any in the hall." [A voice: "That's all right." Applause.] And I saw two lit-

tle drops of water gathering in that man's eyes, and he says, "Mr. Todd, I am glad to hear it; you are the first man that has said to me that there is anything good in my work." And that man has been introduced to you in 1901 as your "master." [Applause and a voice: "That's all right."] Now I want to ask Pirie Macdonald if he still thinks I am a gigantic ass? [Laughter and applause.] Does he still think I am crazy?

Mr. Macdonald here came forward, facing the audience.

Mr. Macdonald: Beyond any kind of question, gentlemen, I can prove the proposition that Mr. Todd has been talking of. The pictures of Mr. Hollinger I will grant, with as much enthusiasm and as much frankness as I have in me, and as much honesty as any of you dare, that I did not know the pictures—that I did not understand those pictures—at that time I was working on lines that were leading directly to them. I was working on lines that had been laid down to me by old man Inglis twenty years ago, and which were working toward what Hollinger got in a jump, but as to appreciating Mr. Todd's feeling I grant you that I did not. On the other hand, that Mr. Todd is crazy is a foregone conclusion.

Mr. Todd: That Detroit convention has always been to me a turning point. In St. Louis you had the last of the red-hot time conventions. They will go there again! I wanted to see higher ideas in the heads of all the photographers of this country; and in Detroit the convention got on an even keel, and when you went to Celeron you went away in the different direction. The conventions up to 1895 must have always left a nasty taste in your mouth. I do not think you have one regret in connection with any of the conventions after 1895. You have become more and more enthusiastic every year. You are having mental pleasure instead of questionable physical pleasure.

Now, in my struggles to interest a very large number of photographers on the pictorial side of their art, I was invariably met by one answer: "If my



R. Bishop,

FIRST PRIZE.

Jersey City, N. J.

subjects were only better I could make better work"; and I tried to convince them that the man behind the camera was far more important than the subject in front of it; but while this was self-evident to me, it required proof to

the photographer. So for years back I have followed the carrying out of the idea that you find illustrated in this pamphlet which has been distributed here, containing half-tone reproductions of twelve portraits of myself by as

many different photographers. We frequently have an idea in our heads that we defer the execution of for a long time, but this year I happened to talk to two or three of my friends, and mentioned this idea. One of them said, "For heaven's sake, go do it!" I went right ahead, and in ten days all the pictures that you have seen here were made. I was just starting on a trip; was to call at Rochester, Boston, New York and Philadelphia, and then back to Chicago. I wore the same suit of clothes, the same tie, everything the same, so the subjects would not be different in any way; and I called upon each of these gentlemen in turn and explained the notion that I had in my head. I explained to them that I would pose as a customer wishing some pictures made, but hadn't the ghost of an idea what I wanted; so I put myself unreservedly into the hands of the photographer, and whatever he made of me I would accept as being just right.

I expected that I would find great variety in the work, but the actual results far surpassed anything I ever dreamed of; and as the pictures came along to my office I sat and looked over them again, again and again, wondering why there should be such a difference. At last I began to see in them something I never dreamed of. I began to see in them not so much the man Todd as I knew him—and I frankly confess I do not know him—but I began to see in them the photographer that made the picture, the individuality of the man behind the gun. The more I look over them the more convinced I am that there is nine-tenths photographer there and one-tenth Todd.

Take the very first one. You all know Mr. Appleton, what a genial, pleasant gentleman, a man of tact and expression, a man that is a good listener and a good thinker—and there he is in my picture!

The next one, Mr. Hoyt. Mr. Hoyt views life too seriously. He is a man who is terribly in earnest. He means to be one of the finest photographers to be found on this continent, and conscientiously he is studying light, posing,

composition, the details of his work; but he is so wrapped up in it that he forgets sometimes, I suspect, the little nothings, the small things of life, the oil that makes things go smoothly between man and man. When I sat in his chair, I felt that he was too intent upon the mechanical side of his work to think of the man that was before him. So you will observe that I am very serious in that portrait. I could just fancy that if I had lived about three hundred years ago I would have been fighting at the head of the Covenanters at the battle of Drumclog.

Contrasting Mr. Hoyt with Charley Hearn, who is always in the best of good humor. He has any quantity of small chaff, nothing very serious; that makes a man feel good. While there before his camera he kept rattling away, not saying anything very much, but it was pleasant and agreeable to listen to and I feel very much like him. Look at his face as indicated in my picture.

Mock, of Rochester, I have always looked upon as being a good business man first of all. He would almost do for a Scotchman, although he is a German. He knows a dollar when he sees it, and he knows how to keep hold of it, I think. I hope you will observe, gentlemen, I am here a good German banker. I think I could get a position as president of a bank on that photograph. [Laughter.]

Mr. Hollinger: I doubt that very much.

Mr. Todd: When I dropped in to see Will Armstrong, I said to him, "Well, how are you?" He said, "Todd, I am not feeling well. [Laughter and interruption from Mr. Hollinger, "That is all right!"] I have had one of my old attacks of the ailment that bothers me a great deal, and I am just getting over it." And I think that Todd here has the same trouble! [Laughter.]

Mr. Cramer: I think that spoils all your chances to get that position as a banker. You look like you had not washed your face for a whole year.

Mr. Todd: A man who is economical over water may be economical over money.

Hollinger is a man you all know; he is a man who, when you get him on the platform, is one bundle of nerves. [A voice: "He is all right."] Of course he is; but Hollinger seated in a chair is calm, cool, collected, a man with a lot of reserve power in him, who can survey all that is going on. He is not worrying any, and in his picture of

idea that I was a man that went about telling stories and having a whole lot of fun, and he tried to get that. When he developed his negative, he said, "Todd, that is a caricature." I said, "You are, perhaps, barking up the wrong tree." I was making no suggestions. So Longdon got me in the chair again, and having been disap-



INTERVALE IN WINTER.

Chicago Salon.

W. B. Post, Fryeburg, Me.

me neither am I. I am happy and cheerful as can be.

Clayton Harris I met for the first time, and Clayton Harris impressed me as a man who knew that he knew a great deal, was thoroughly satisfied that he knew all about pictorial photography, and did not need to study very much more. So you will observe Todd as one of the most self-satisfied men in the world! [Laughter.]

Longdon, in Chicago, is a man I know very well. When I sat down before Longdon's lens, Longdon had an

pointed in the line that he was trying to follow out, he was at a loss. He had nothing definite for which he was searching; and so in the picture I think I am pretty well puzzled, and in that I represent Longdon.

Allen Cook is one of the young men of Philadelphia of whom you will hear a great deal bye and bye. Allen Cook, while I was sitting in his chair, was a little bit puzzled as to what to make of me. He walked up and down, pulled his mustache, raised the background, adjusted the various articles around the

back, and looked at me again for ten or fifteen minutes. I seemed to be to him one of the biggest puzzles he had ever met, and I think I am in very much the same condition of mind in this picture as Allen Cook was, wondering what he was trying to be at as much as he.

Until I went into the studio of Pirie Macdonald I had left myself entirely in the hands of the photographers. I said nothing beyond the commonplace; but Macdonald and I up from 1895 to the present moment have never met but we have had a scrap of some sort or other. I can not account for it. I blame Macdonald. The chances are he blames me, but the fact remains that we are two Kilkenny cats whenever we come together. Whenever we get together at close quarters the fur commences to fly. So when I sat down in the chair it went over me, I wonder what Mac wants to do with me? So I turned around and said, "Mac, what are you going to make of me?" Mac drew back, gave a good, hearty laugh, and he says, "You and I never meet but we have a fight, whether in contest or on the convention floor, so you might suppose my conception of you would be what I believe is the conception of every photographer in this country—that you are a fighter, fighting every chance you get; but, my boy, you are not that to me. I can see under that skin of yours. To me you are Todd the dreamer, and it is Todd the dreamer I am going to get." And I think he did. [Applause.]

It came to me with a new revelation that a man could start off with a conception of the predominant nature in a man, work for it and get it. You may differ, every one of you, as to whether that is a good picture of me, gentlemen, but you can not deny that Macdonald worked for a something and got it. Therefore, I call him a great photographer. [Applause.]

Mr. Armstrong: Best picture in the book.

Mr. Todd: Dyer, of Chicago, is a man that I know well. We live a few miles from each other and frequently go

home on the train together. Whenever I get a new notion buzzing in my head, Dyer is the very first man to know it. So he knows me well. After my experience with Macdonald I sat down in Dyer's chair, and said, "Well, Dyer, have you any notion in your head you want to get?" He said, "Yes; I am going to work to show that you are a man of high mentality. You have got clear, mental insight, and there is a good deal of the dreamer in you." The reproduction here does not convey what is in the original print. It is a Sepia; it is hard to get the full tone and the fine gradations on which very much of the effect of this picture depends. I would ask every one of you to go up and see the original hanging in the room above, and I think that you will find that Dyer's photograph contains all he worked for—whether it is a good picture of me or not.

Parkinson is a man I never met until I stepped into his studio. He struck me then—I will tell you frankly I do not understand Parkinson yet; I have not met the man often enough. I may be wrong in my conception of the man. But he struck me as being a bluff, genial fellow, of good artistic taste, but possibly has not learned the rules of the game, working for effects and striving to gain them, but a little self-conscious that he does not get what he wants sometimes. I feel that that mental attitude of Parkinson is evident in the picture of me. If you observe there I have that self-conscious look. I am just watching every one of you. I am bluff, I am genial, but I have got my weather eye open that you can not overreach me.

Gentlemen, the picture poses are vastly different from what they were in Detroit in 1895. You have come a long way, but there is a long trip ahead of you yet. Such pictures as are displayed on the walls in this convention, and such conceptions of the possibilities of photographic portraiture as are evidenced by Macdonald and Dyer, their conception of getting the keynote of a man's character, points out to me that there is a brighter, a grander day pend-

ing for professional portrait photography in this country. No longer are the people to buy certain pictures because they are clear or a high finished class of work. No longer are they to be offered egg-shell finished pictures, or dull-sur-

You have got to teach them the true principle of art just as fast as you learn them.

Did you ever realize what a tyrant the eye is? Did you ever think that nine-tenths of your expenses are in-



A GRAY DAY IN TOWN.

Edward La Velle Bourke, Chicago.

Chicago Salon.

face pictures, or expensive mounts; but you are starting in on the line of asking good prices for your work because it is pictorial. You have decoyed your customers into bad habits, and you are paying the price deservedly. Now, you have got to educate them on good lines.

curred to satisfy this organ of vision? You could eat off a plain, ordinary, every-day plank, but you want a highly polished table, fine linen tablecloths, cut glass, silver-plated forks and knives, etc. What is the necessity for all these? It is to satisfy your eye; and so if you

want your customers to pay high prices, you must educate their eye, that they will not be satisfied with a fine, glossy finish, or a dull finish, or a fine mount that you put on the picture, but that they will look for the pictorial principle.

And here just a word about pictorial principle. Look at Dyer's picture. The area of this space is broken up into three minor spaces of head, body and background. Each of these is very different in shape from the other two, and each one of them is pleasing in itself. Dyer is a man with a very excellent conception of spacing.

Look at Appleton's. He divides his into four spaces. They are very pleasing, but the outline made by the head and my coat is not to me so satisfactory as the outline as you find it in Dyer's picture. It is stiffer. Follow the pictures through.

Hoyt has no conception of spacing. Hearn has no conception of spacing — is too symmetrical.

Mock has no conception of spacing. Armstrong feels a little bit that way, but he has not got it.

Hollinger has good conception of spacing.

Harris, good conception of spacing — a little dark.

Longdon, one good flowing line, but it is too symmetrical — too uniform.

Cook, I like his work, but the spaces to me are stiff and formal. The outline of the body is not pleasing at all.

Macdonald, no conception of spacing at all.

Gentlemen, it is up to you to take up a new lesson.

THE PHOTO-BEACON, 409 *Security bldg., Chicago, Ill.*

GENTLEMEN,—I enclose renewal of subscription to PHOTO-BEACON for one year, beginning with September number. I can hardly wait for each number and devour them eagerly; the articles are so clear and correct. I wish you years of prosperity for THE PHOTO-BEACON.

Yours truly,

ARTHUR G. HUMPHREY,
Box 596, Peoria, Ill.

BEING PLEASANT.

(An address by W. M. Hollinger, of New York city, at the Photographers' Association of America, Detroit, Michigan.)

Mr. President, Ladies and Gentlemen: I am glad that Mr. Cramer took the floor just as I was about to be called upon, as it gave me a minute or two to settle down and collect my thoughts and get ready to begin right. However, they were near being unsettled again when Mr. Core began to talk of Rembrandt; I thought we were to have a continuation of Brother MacDonald's speech, in which he told us about the old masters. Some time ago Mr. Core spoke to me and asked me if I would take some part in the convention, and I consented, but was surprised when I found that I was expected to fill the place on the program represented by the title, "Talk by a Prominent Photographer," and somebody whispered to me that I was expected to select a topic for this talk. They did not give me a subject. So I thought I would talk to you for a few moments to keep you in your seats and settled down for Professor Griffith, on a subject that interests me most in my business, and that I think will do you more good than anything else; because I love to think about it, love to practice it, and love to tell of it. Mr. Core and I were sitting at the eating-house together talking about this very matter, and he said, "I want you to talk about this subject at the convention." He has not said anything to you about it. I did not forget it. I thought, "That's all right; I can do that as well as anything; rather do it than to tell you about photography, because we are all going to be filled with that." But what I have to say, while not upon the technical side, will still enter into our business very closely. My subject, then, is "Being Pleasant." I am learning that, and I want to talk to you of it. I want to talk to you upon a subject on which we can meet on common ground. When we find men that think as we do we like them better; the more we find that we are on common ground with people, the better we get along with them. It is the people with

whom we have nothing in common that we find it hard to get along with.

This subject of "being pleasant" is a curious one. Everybody is pleasant sometimes; but we want to learn to be pleasant at all times. I want to first talk to you of the advantages of that, and then next how to do it — as far as I have learned it. I have not learned it

most essential thing to get into our work.

We are told by Shakespeare that our thinking makes things either good or bad; there is nothing either good or bad, but thinking makes it so. Another wise man who lived hundreds of years before Shakespeare said, "As a man thinks, so is he." "So is he!" in his



YACHT CADILLAC.

Chicago Salon.

F. S. Crowell, Chicago.

all yet, but I am getting along. I have been learning it for some time; and one reason why I enjoy life more than I used to is, that I am learning more and more how to "be pleasant." It is quite a trick, how to do this; and it touches every customer you come in contact with, it touches everything about us. Everybody who has anything to do with us feels this atmosphere at once, from the little newsboy to the members of our families at home; everybody feels the effect of that one thing, and it is the

heart! We have learned much when we learn that nothing outside of ourselves has anything to do with our being pleasant — not a thing! No matter to me how you look, no matter to me how you think, or how you feel, I must be pleasant. We have a little world of our own; we all have our ancestral ideas on our shoulders; we all think that we have to be cross, and get old, and get wrinkles on our faces, and look crabbed and surly in order to be dignified; there is nothing in that, nothing

whatever. If we want to enjoy our lives we must find out how to be always bright and pleasant. And I would add to those things that those good men told us of, "As I think in my heart as my heart is that is the way I am." That is my idea, and on that principle I work. When I look at you I do not measure your surroundings; I just measure you, and how you take your surroundings. We all make that which pertains to us. There is nothing affects us in this world but what we allow it to, not a thing. I make myself; I make my day; and when I want to keep right and be pleasant all today, I must begin not today, but yesterday, and this morning even before that. I wanted to feel pleasant and lively this morning; but I did not wait until this morning to make that resolve; I began yesterday morning, and to be pleasant tomorrow I will begin today; and I tried that — and here I am. [Applause.] I am living just that way, I want to say to you, every day, and I am getting along splendidly at it. I am telling you this for your encouragement, that you may believe that it can be done. I never get mad, never get worried; I do not care how things go. [Applause.] It took me a long while to get where I could say that. Now, that has an influence on my children; it has an influence on my wife. I will tell you when you get your wife to say you are all right, it will be a great step forward. It took me longer than anything else to learn to get to the place where my wife could say I was "all right." Then it took me still longer to get to the point where my wife's corns did not give me the back-ache any more. [Applause.] It took me a long time to get there. Every one of the people that come into my business place, or nearly every one of them, is carrying a tremendous load, and they need to meet some one who is not carrying such a load, or can do it more easily. I can not help another man to carry a burden if I am overweighted myself. No beggar helps another beggar with his pack; it is not the grumblers that help other people in their troubles. The selfishness

of men is at the bottom of the whole matter. And I want to say to you that I am a friend to each one of you; but you do not all know it. A man who just met me up-stairs said, "Hollinger, you look better." "No, I said, you are feeling better." [Laughter.] "You are feeling better, and you look at me, and as you feel I am." Now, I am all right all the time. I am watching all that there is good in you, and I am paying no attention to the unpleasant side. I used to be a great reformer, belonging to three churches and all the political parties that wanted to reform the state; I tried to down the devil, and generally to reform the world. I have stopped all that now, and am trying to live as one man. I am not living in New York only as a photographer; I am living there to be a man; that is my highest object — nothing else.

Another thing, I am getting a living, of course, primarily from photography, but I want to do it in the easiest possible way; I am working always along the line of least resistance, which is nature's way, you know. I am paying less attention to things that are wrong, and looking at the bright side all the time, and taking things as they are. Take things as they come, and you will have pictures that will please all the people.

Another thing I am going to say to you, I am going to show you where I can turn this "being pleasant" to account. I have a friend sitting down there who worked with me when he was a boy. We used to turn over to him the taking of pictures of the babies, etc., and he used to get in front of them and try to entertain them, and we would hear him say, "Look at the monkey, look at the monkey!" Why, even the baby's mother had to laugh. There was no monkey, only she laughed at the "monkey," that's all. [Laughter.] Everybody saw the "monkey." So, look at the monkey! I think of him often, and I always think, "Look at the monkey!" That taught me a lesson. We never told the mother to "look pleasant." She thought of the monkey.

That suggests a few points. We do

not need to tell people any more to "look pleasant." We must be the thing, and we will bring it out of the people. Our pictures must reflect the right atmosphere or I do not care how fine otherwise they are they will not have the soul in them that will give them life. The pictures that you will see in some great gallery may not some of them be technically correct in every line, but now and again as you look at one you will find a soul speaking out of it. The man was behind the artist, and it is the man who speaks to you. That is what we have to get from our subjects, the soul that is behind the man;

to bear them by paying no attention to them. [Applause.] I am going to stop. [Cries of "Go on!"] If I go on, you know, there is no end to this. [Applause and laughter.] I will just have to stop when the president comes over and sits down in his chair.

Now, that is an advantage to you in many ways; but especially in the daily conduct of your business. Let me give you a little incident which illustrates this: When we went to our meal the other day, we were in a fearful hurry, because we were late. I was so hurried that it took me a long time to get my tie fixed, and the little details of



Awarded second prize in plastigmat contest.

Harry Coutant.

THE BATHERS.

you must draw that out; get that into the picture and I do not care what the rest of it is. Now what we get out of people depends a great deal upon what we put into them. When they come into the presence of a pleasant fellow they will feel they are pleasant too, and they will at once think better of themselves. We need to know a little of everything to be able to put ourselves in touch with the people we come in contact with. We must hold ourself free to enter into the thoughts and the lives of the people we meet so that we can draw them out, make them enjoy being in the room with you, and they will go away feeling better. Make a pleasing impression upon every man or woman that comes into your studio. Don't talk to them about their corns, but help them

my toilet. Finally we got into the dining-room. It was full, and we could not get a waiter right away, but the head waiter brought us an old fellow, who moved around apparently in a very methodical and lifeless sort of way, like that [illustrating], seemingly moping about. We were in a terrible hurry, as I said, and at once my heart went down; but I thought, well, we will make the best of it and wait, so we waited. The old fellow took our orders, and came in again with a smile, placing everything in its proper place, without fuss, without hurry. He arranged all the necessities of the table. He put the salt, the pepper, the coffee; everything in its place. Then he said, "Am I all right as far as I've gone?" I saw at once we had struck the right

man. If he was asked for anything he didn't fly around after it, like this [illustrating], he simply got it. Well, we kept on at that table, and I found that that old man knew every time that I was in the room. He knew many of my ways. He knew that I didn't eat a great deal. He anticipated my wants. I tell you before I left I tipped him a little more than I customarily do, and I was glad they gave me the old man. I was glad I had found out what there was in that old man, with his pleasant smile. I tried to express something of this to him, and he seemed to appreciate it, and when he came again to our table he said: "I see you are around at my table again," and he was just as pleasant and as nice in his quiet way as ever. Now, if I had kept my ruffled side out I would never have enjoyed that old man, nor would he have enjoyed coming to me the next morning and telling me that he was glad to see me at the same table again. See? Now the point I wish to impress by that is, always to keep the best side out, no matter how things go.

Now, here's the way to do it: Here's my recipe for making everything "all right." Do you hear that word? "All right." I tell you it is a tremendous word, which I feel right to the sole of my feet. You can wake me up in my sleep, and if a burglar would come in I would say, "All right." [Applause.] Ask my wife if I wouldn't. All right. Nothing ever comes across me that is not all right. If anybody bids me goodbye I say "All right." They tell a joke on me that one day there was a young girl going away from our town on a bicycle for Columbus. We went down to see her start. She said to me, "Good-by Mr. Hollinger; I don't think I will ever get back to Dayton and see you any more." I said, "All right — all right." And it was all right. Everything is all right. If I am all right, everything else will be all right. Now, that is the thing. This does not come by saying it once, but it comes by knowing that all things work together for our good when we want them to, and when we are right and enjoy the good there

is in everything. Everything — every person — has good in them. There is not a bad person in this crowd. None of you are any worse than I am, none of you any better. I don't like any one to say he is any better than I, nor I any worse than anybody else. Every human being is good in a way. It is your and my business when that person comes into our presence to get that good out of them. When I meet any one, and I keep the sweet part out, it will draw the sweet out of them. Everywhere I go I am getting the beautiful, the lovely, the sweet side of life; and I think that almost all my pictures show that, and if they do not, I do not show them to anybody, unless they show forth the best there is in the subject. I don't care how cross somebody is, I know the only way I can counteract that is by not feeling cross myself. If things don't go right, that's all right.

I want to say one word more and then I will quit. You will never get the best out of people until you are willing to trust them. I went to the great city of New York prepared to trust every one that came into my place. I used to tell people when they came up to the desk, "You will have to pay, I don't trust anybody; I treat every one alike." And the next time we met, that man and I didn't feel quite so kindly to each other. I learned after a while that I could trust everybody, and things moved along very much better, and I got very much more money out of them. Some of you probably say, "You can not do that in New York." I think I can; for you know that every person that thinks you have a good opinion of them in your own town, likes to pass you on the street, and everybody that thinks you have a bad opinion of them doesn't want much to do with you anywhere. There is not a man or woman or child that is going to cheat you if they can help it, if they think that you think they are all right. You know that. [Applause.] You may not get your pay as quick as you want it, but you will get it. Trust people everywhere and you will get your pay. Many a mother has lost her child and has no picture of it because she thought she

had to pay in advance or she couldn't get a picture taken. You might have taken a beautiful picture of that child if you had been willing to trust that mother. Let us do as we like to have others do to us. I do always the things that I would like to have people do to me. I bought some supplies in Cincinnati from a concern that never saw me before. I selected what I wanted and said, "I think I will take this piece with

you saw, as my friend used to say, "The monkey!" [Applause.]

THAT'S ALL RIGHT.

If you join a club and are out all night,
And drink too much and go home tight,
If your wife gets mad and you have a fight,
Hollinger says that "That's all right."

If you try to reform with all your might,
And join a church and seek the light,
Then fall from grace clear out of sight,
Hollinger says that "That's all right."

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FROM THE BRIDGE OF RUSH.

Chicago Salon.

Frank Green, Chicago

me." They said, "All right." And they sent the balance to New York, and they never said pay, or never said bill. They were the first people I paid after I got back home. I felt I was all right. I have tried to treat every person I have come in contact with the same way. Don't talk much to me about photography. We all know about that; we want to know how to live. I have kept this room full, and not a man has left his seat, yet I didn't ask any one of you to stay. You did it. Why? Because

If you are ragged and dirty and look like a
fright,
Or neat as a pin and active and bright,
If you talk like a fool or your sayings are
trite,
Hollinger says that "That's all right."

If you are poor as Job and share your last bite,
Or rich as Croesus and can't spare a mite,
If you stick in the mud or fly like a kite,
Hollinger says that "That's all right."

Coming or going, by day or night,
Up hill or down, to the left or right,
Where'er you are, what'er your plight,
Hollinger says that "That's all right."

WILL CUNDILL.

VOIGTLANDER AND I.*

BEING THE REMINISCENCES OF JAMES F. RYDER.

CHAPTER IX.

THE KIRTLAND MORMON TEMPLE.

I had heard of the Mormon Temple at Kirtland, some ten miles from Painesville, had a curiosity to see it, and determined that should be my next stopping place.

I bargained with Mr. Robert Briggs (familiarily known as Bob), a citizen of Painesville, who kept horses for hire, to haul me over. The price was a daguerreotype of himself and a silver dollar. When last I saw him he told me he still had the likeness but had lost sight of the dollar.

The drive from Painesville to Mentor is as fine as can be found — straight, broad and level, fine farms on either side, orchards, broad fields with grazing cattle, well fed and sleek. The homes of the farmers were well kept, well painted and well fenced, showing thrift and prosperity. Shade trees were in abundance to protect and beautify them; flowers and vines climbing over latticed porches, doors and windows; hollyhocks in rows and in many colors; sunflowers, poppies, marigolds and peonies. Old-fashioned flowers testified to the presence and good taste of the farm wives and daughters and the pride they took in tidy front yards and gardens, for be it known that superb road is a continuation of Euclid avenue, the pride of Cleveland and famous as one of the most beautiful avenues in the world. Verily, on this delightful day the country through which we drove "had its face washed and its hair combed."

Mr. Briggs entertained me with information as to the names of the residents and gave me gossippy sketches of their financial strength and moral standing. Not in a single instance did he report a blemish upon the character or good name of any resident.

Really! is this Arcadia, or a road in Ohio?

On reaching Mentor, we turned south, taking the road which leads to



KIRTLAND MORMON TEMPLE.

Kirtland, three miles distant. The flat evenness of the drive between Painesville and Mentor is changed as we proceed upon the crossroad, and we find waves of undulation. We are approaching a valley through which runs a winding stream emptying in Grand River at Painesville, and by that route finds its way into Lake Erie.

As we approached the brow of the hill, down which we were to go, we stopped to admire the picturesque valley stretching to the east. Before us was a winding road through overhanging trees leading to the flats or lower part of the village.

Kirtland flats comprise the portion lying in the valley where was located the business of the village, the store and postoffice kept by Mr. Isaac Sherman, a grist mill, a wagon and blacksmith shop, and quite a number of scattering homes.

Kirtland on the hill represented more territory. Overtopping all was the Temple, a Young Ladies' Seminary, once presided over by the late Gen. M. D. Leggett; the School for Children, apart from the seminary, two taverns and a good number of residences.

We drove down the hill under the arching trees, across the flats and over the bridge. Bob stopped at the watering trough, gave his horses a drink, then commenced the ascent of the hill. As

* Copyright, 1900, by James F. Ryder.

we reached the top the declining sun lighted up our side of the temple, leaving the other in shadow, giving the building a bold and striking effect against the sky for a background. The shadows from the spire fell upon Bump's Tavern, across the road. We

Sitting in front of that end of the tavern which contained the barroom, and near the entrance door, were two men in chairs tilted back upon their hind legs with the tops of the backs resting against the side of the house, engaged in the pastime usual to loiterers about



Awarded first prize in plastigmat contest.

Mrs. Myra Albert Wiggins.

THE MOTHER.

drove over the shadow of the body without compunction or comment. A couple of young men were in front of the tavern bantering for a horse trade as Bob and I drove up. We were an unusual arrival, with so large a piece of baggage as was necessary to carry my daguerreotype outfit.

taverns, of whittling. Mr. Bump had been reshingling the wing of his house and some of the unused pieces made good material for their knives. The chips from their work were scattered about them upon the floor of their platform porch. One of them knew Mr. Briggs, and as we dismounted from the

low-box democrat wagon he threw his chair forward and came out and helped to unload my big trunk and place it in the hallway of the house.

"That fellow a peddler or a doctor?" he asked. "There's a smell of drugs and medicines in that trunk."

"No," said Briggs, "he's a picture taker. He's been taking likenesses down at Painesville that look like they could talk."

"Say," continued Briggs, changing the subject, "do you know whether Cris Crary has sold them gray colts yet? Think I'll drive over and see him, now I'm so near."

Here Mr. Bump announced supper and we filed into the dining-room. There was a fair representation of people at table, among whom was Mrs. Bump, a kindly, motherly-looking woman, and their young daughter, a sweet child who made friends with me at once, and learning I was a likeness man invited me to "take her picture."

I was well impressed with these general people, and felt assured I would be well fed, judging from the generous table and good cookery. I may remark, a young man not long from his mother's ways of "dishing up things" recognizes and welcomes similarities. Supper over, I did what the general visitor to Kirtland usually does—climbed the long stairs leading to the outlook from the steeple of the temple, and viewed the country around.

Directly in front to the east lay the valley, reaching toward Painesville and Grand River. The stream through the valley, which I fancied was a branch from the Chagin, curious to explore a new route to the lake, had diverged, leaving its mother's arms and tickling itself as it ran like a wayward child through this charming valley to join its neighbor, the Grand. It wound itself idly and peacefully past the foot of Little Mountain, which lay a little to the south. The sun was dropping lower and left a lingering shadow upon the northerly bank of the valley, describing finely the topography of the country. The sound of letting down of bars and the calling of "Co, boss; co, boss," was distinctly heard, and boys bringing cows

to the barnyard to be milked reminded me of when I drove cows to and from pasture for sixpence a week.

Off to the left was the roadway through the trees where Bob and I had come a couple of hours before. It looked beautiful now from the temple's spire. Farther to the left were indications of Willoughby and the sun dropping into the lake, leaving a background of glory in the sky. Looking to the right toward Chester was a straight road gradually rising as far as could be seen. Leaving the fine outlook I came down to the ground and crossed over to the tavern.

The whittlers were just "knocking off" for the day. The one who helped to lift my trunk out of the wagon commenced brushing the whittlings out from the wrinkles of his pants, then pushed the blade of his jack-knife shut to the first joint by pressing the back of the blade into the palm of his left hand, then to finish for a final complete shutting, pressed the back of the blade against the calf of his leg, when it snapped deep into the handle with a sudden concussion, and then said to his companion, "Lige, there's the best stuff in that blade of any I ever owned. It'll cut a hair slick as a razor. I traded for it with a fellow up in Chester and got the best end of the bargain by a good ways." Continuing, he said, "Well, Lige, I guess the wimmen folks must have supper ready by this time and mebbey we'd better run home."

"On second thought," said Ira, his companion, "let's take a 'thimbleful' of 'Bump's best' just for our appetites. Been somewhat off my feed lately."

The "thimbleful" having been absorbed, he of the failing appetite wiped his mouth with the inside of his hand, pushing it over toward the temple, then dexterously turned his hand and with a return wipe brought that flexible feature back to the tavern side, got his lips adjusted together and with a loud smack smothered something between a shudder and a strangle and said, "Gosh, Lige, that's a stinger! I tell you Gus Bump knows how to keep good whisky."

"Yes," quoth Mr. Bump, "I got that

whisky to wash my horse's legs with; of course it's good."

"Well! just put it on the slate, Gus. I expect money from Jones soon, then I'll square up."

"Good night, Gus. We'll be over tomorrow some time." And the friends

"Prominent citizens?" queried I to Mr. Bump; "not Mormons?"

"They're both good fellows in a way—not quite to the front as to energy, but good-natured, harmless citizens. They'd rather swap horses and dicker in pigs than chop cordwood."



FROM MY STUDY WINDOW.

Chicago Salon.

Louis A. Lamb, Chicago.

took a cut across lots in a direction south of the temple.

"Yes," said Mr. Bump, partly as though communing with himself and partly observing to me, "I've heard that Jones story for a good while and am getting tired of it."

Then Bump's confidence, beginning to flow again, said, "There's Ira; had a good farm left him at his father's death three years ago. He sold off a strip of ten acres before he had put up a gravestone for the old man. Then he mortgaged what was left to buy a pat-

ent right upon a churn which didn't pan out well, or which he didn't properly push. The interest got behind and he put another mortgage on to clear that."

"Not very good business management," I observed.

"Well, no," said Mr. Bump. "They've gone into the chicken industry now. It don't tire them to have their hens lay eggs. They have some beautiful fowls though — Shanghais. The boss rooster can stand on the ground and eat corn off the head of an up-ended barrel."

Pushing his finger down into his pipe bowl, he continued, "They are talking some about going into the honey business. There's been a man around with a new-fangled hive, all partitioned off inside into compartments. They say the bees are so pleased with it that they work overtime. Why, if some fellow should come around selling wells already dug, Ira and Lige would be his first customers."

As Mr. Bump seemed in a communicative mood, I thought I might properly ask some questions about the temple and the people who had worshiped in it. So I said, "I notice, Mr. Bump, that the doors of the temple are open, and all persons seem privileged to enter. Does any one have charge or control of it?"

"No," said Mr. Bump, "it is as free as the common surrounding it. No one pretends to exercise any right or inclination to manage it. The people of the village and strangers who visit it go and come without question. It is free to all."

"Do you think there would be any objection made by any one to my using one of the windows for the purpose of taking daguerreotype likenesses?"

"Not the least," replied Mr. Bump. "If you think it would serve your purpose and you would like to go in and occupy it, do so freely. If you like, I will have your trunk sent over in the morning."

I thanked him and said I would look the place over with reference to taking possession.

"Are there many Mormons living here still?" I asked.

"Oh, yes," he replied, "it was a good deal for people to pull up, to leave home and friends; they couldn't take farms and property with them. The more earnest went; many are still here. They gave up holding services, and the temple has been abandoned as a place of worship for years."

"Did you know the leaders, or any of them?" I asked.

"Oh, yes. I knew Joseph Smith very well. We used to call him, in speaking of him, Joe Smith, as easy as people call me Gus Bump. He was a kindly man, and popular. He used to live down on the flats and had a house aside from his residence, where he secluded himself at times, and no one ventured to disturb him. While you are here, you will probably visit it. You will be interested in seeing it. I knew Sidney Rigdon, too. He was rather reserved. Not so openly cheerful as 'Joe,' but a good man."

After some more chat of an indifferent nature, I bade Mr. Bump good-night and retired.

Next morning I visited the temple and explored it with much interest and curiosity. On entering upon the main floor, that which would be in usual churches the auditorium, from the entrance doors of which — there was one on each side — were aisles running back to the altar. On either side of the aisles were broad pews, the space from the floor to the ceiling was divided into compartments by partitions of canvas, heavily painted with white upon both sides. These partitions or curtains were heavy as sails to a ship. They were fastened at bottom to large rollers and rigged with ropes and pulleys at top like curtains in theaters, for raising and lowering. Each curtain, with its heavy roller, dropped into the space immediately behind the pew backs and well in front of sitters in the pews, so occupants could be entirely secluded from occupants of other pews — separated as completely as though stowed in pigeon-holes. Or, if desired, the partition curtains could be raised and the congregation seen as a whole. Why these partitions and for what purpose was one of the things I could never learn. There

were a good many Mormons left in Kirtland, but none who would talk of the rites or ceremonies practiced in the temple.

The room above was similar in size as to floor space, but lower in height of ceiling. There were no dividing partitions in this room. It was filled with pews, and at either end with curious pulpits, as many as six pulpits. This I

With my background, my sidescreen, a little table and *Voigtlander* set up upon my studio floor, I was ready for business.

Here permit me to claim the unique distinction of being the only photographer extant who ever had a Mormon temple for a studio—a distinction of which I am proud.

On the evening of the day in which I



THE STUDENT.

F. Holland Day, Boston, Mass.

Chicago Salon.

fancied had been a section or department for the lesser saints, or possibly for Sunday-school. In this room, which had broad and high north windows, I determined to locate my studio. I built a floor over the tops of the pew-backs, using them as joists; constructed a flight of steps with handrail, by which to ascend and descend from the floor proper.

took possession and fitted up for business there was "company" at the Bump Hotel, and I was invited to join the little party, which comprised a couple of former instructors of the Young Ladies' Seminary, there on a visit, and a number of their pupils who met to do them honor. By way of interesting the party I brought in a few daguerreotypes, which were as good as letters of introduc-

tion, so eager were people in those days to see likenesses. It happened that among those I showed were pictures of a lady of prominence of Painesville, and a handsome young man, also of Painesville, and who was well known to the young lady pupils, who were much pleased at the chance meeting.

I announced to the ladies that I had taken possession of the temple for a studio and invited them to call.

The following morning, in good season, they came. After a little visiting, I invited them to sit in group, which invitation was pleasantly accepted, and in a half hour thereafter I had the group, with other likenesses, framed and hanging at the entrance door of the temple, with my card as daguerreotypist. I had many interested visitors from the start, and soon began to have customers. The residents had not before had an opportunity to have likenesses taken at home, as I was the first "likeness man" to visit Kirtland.

Visitors from a distance sometimes sat to me as an added interest to their temple advent—daguerreotypes were souvenirs of their visits. The having likenesses taken in a *Mormon temple* was something to be remembered.

One day I made a visit to the famous residence and study of the prophet, Rev. Joseph Smith, which had never been occupied after his departure from it. I examined it with interest as a house with a history known to but few. The striking peculiarity of this house was a hole through the upper floor and ceiling large enough for a man to pass through easily. It looked as though a crowbar and an axe had been used in making it, from the floor above. No effort had been made to cut it to any particular form, or to smooth the edges; broken lath and plaster covered with cobwebs were hanging in ragged disorder from it. This, I was told, was the prophet's private sanctum, where it was believed at night he received his revelations, and where none intruded upon him. Whether he believed divine messages came more clear-cut through that ragged hole I know not. There seemed a superstition about the matter antagonis-

tic to confidences or willingness to talk on the part of those I thought could have enlightened me. I simply certify to what I saw, and am unable to give further information.

In late years, while visiting in Palmyra, New York, near the hills where the sacred writings, upon plates of gold—the Mormon bible—were exhumed, a friend, in showing me the places of interest about the town, took me into an old building which had once been a business block but had fallen into disuse. He took me up stairs, through hallways of dirt and disorder, and finally into a large room which contained a few broken chairs, gloomy walls, old tables, dirty newspapers covering the floor, cobwebs hanging from the ceiling so covered with dust as to look like wrapping twine for size. My friend told me I was in the room where the Mormons held their first meetings after finding their bible. Since their leaving Palmyra the room had been shunned and quite deserted.

Upon the floor I found an old sword. I became at once interested, and wished to possess it, in fact would have been glad to buy it. My friend told me no one would know anything of an owner and advised me to take it with me, which I did.

I had a young friend who was much interested in collecting arms and curios. To him I gave it and afterward saw it in his cabinet labeled "A relic of Mormonism."

The temple at Kirtland, as the first, will always be an object of interest. It has always been and is visited by many. In the tower, upon every available flat surface of the outlook, was carved the names of visitors ambitious to record themselves as such.

After remaining several weeks at Kirtland, I left one fine morning for Chagrin Falls. Going up the Chester road, the route to Chagrin, I watched the temple until it was no longer to be seen. I could never and will never forget my experience of that pleasant summer.

Nauvoo, Illinois, after Kirtland, was next chosen as the "Land of the

Prophet," and plurality of wives. Salt Lake City now holds the cup.

When it came to pass that "Brigham," the saintly prophet, was removed hence, Julia A. Moore, the "sweet singer of Michigan," took her pen in hand and composed the following touching wail to his memory:

"Tis said that Brigham Young is dead,
The man with nineteen wives;
The greatest Mormon of the West
Is dead, no more to rise.
He left behind his nineteen wives
Forsaken and forlorn;
The papers state his death was caused
By eating too much green corn.

It left them free once more to roam,
A husband to choose once more;
But some of them will never choose
To live the same life o'er.

"And as they stood around his bed
Their hearts was filled with pain
To see him writhe in agony
And hear him not complain.
It made them feel so very bad,
They wept and mourned that morn,
And yet to think his death was caused
By eating too much green corn.

"At last his spirit fled away,
And Brigham was no more:
Such weeping, wailing in a home
Was never heard before.



OH, BRIGHAM! HOW COULD YOU LEAVE US?

"It made him sick and very bad,
Cholera morbus set in;
Doctors was brought from far and near.
But none of them could help him.
Of course, he had the best of care —
A wife for every call,
Nurses plenty, he had, you see,
But he died and left them all.

"Oh! death, it came, he had to go,
And leave his weeping wives
To mourn the loss of one dear friend,
The partner of their lives.
They stood around his dying bed,
To see his life depart,
But few of them, do I believe,
Wept with a broken heart.

"Some, perhaps, did weep for grief,
And some, perhaps, in woe;
And some, perhaps, were glad to see
The old Mormonite go.

And when his children came to see
And look at him once more,
Their thoughts were often thus expressed:
'Our papa is no more.'

"Brigham Young had nineteen wives,
And children by the score;
Such a family for one man to own
Was never known before.
His children is now left by him
Forsaken and forlorn,
'Tis said they're often heard to say:
'Pa did eat too much green corn.'

"Brigham's wives are in deep grief —
It won't last very long,
Although 'tis said their husband died
By eating too much green corn.
He made a glutton of himself,
Not thinking what he'd done,
Which caused the death of a Mormonite
And the end of Brigham Young."

PHOTOGRAPHIC PRINTING PROCESSES.

BY LOUIS H. HOYT.

CHAPTER X.

DEVELOPING.

The tray used for developing must be absolutely clean, and under no circumstances should one be used which has ever contained hypo or mercury. Use plenty of good, fresh developer. Do not attempt to bottle developer after having been once used and preserve it for future use, as it almost always causes trouble. It is possible sometimes to use it the second time, but the risk is very great and it is very expensive economy. If you buy your developer in tubes, accept only that which is prepared by manufacturers of the paper. There are many developers on the market in this form, put up by so-called chemical companies, which, on the average, are worthless. Department-store bargains at 2 cents per tube are pretty expensive in the long run. When speaking of these chemical companies I wish it distinctly understood that I do not include the Chicago Chemical Company, otherwise known as the "Tolidol People." Every tube of their manufacture which I have tested has given perfect results. I can recommend their goods without any hesitation.

It is no trick to make your own developer, and it is cheaper. Be sure your chemicals are pure. If an ounce of metol seems too large an outlay, get some of your friends to chip in and divide the ounce between you. The same with other material. Amateurs should get together and compare notes, as there is much to be learned in this way. And to the new beginner I want to say, just because some friend has owned a camera one season longer than you have, it does not follow that his or her advice is to be taken as though it were gospel. Listen to all that is told you, but think and observe for yourself. I know a number of amateurs who have been at it for a long time, who can discuss the merits of a lens they never saw, and quote from numberless authorities off-

hand to show you that you are all wrong, who positively can not show one decent print of their own make.

Handling the prints in the developer may be done in several different ways. Most makers advise wetting the print with plain water, and after draining it, pour on the developer. This is a very good method, especially with large prints, but not at all necessary with any ordinary sizes. I never did it except in experimenting, and I have made prints which were eighteen inches wide and eight feet long without doing it. So far as I know these were the largest prints on this style of paper ever made.

It is common practice when developing bromide papers to wet the prints before pouring on the developer, and I suppose the same idea was followed when writing directions for these. If you are using a developer which is too strongly alkaline you may have to wet them, or they will develop with streaks.

Prints may be developed by laying them on a flat surface and applying the developer with a sponge or brush, but this method is not practical, and developer is wasted.

The easiest method I have found is to put plenty of developer in the dish, so that the prints may be covered quickly and evenly. Take the print by one edge and place the opposite side in the solution, giving it a push so that it will slide in quickly. This will cover it quickly and brush off any air bells.

Every care must be taken that not a trace of hypo gets into the developer, or on the hand that is used for developing. Stains will surely follow. It is easy to use one hand for developing and the other for fixing. The hand used for developing should not be placed in any but the developing tray; not even in the tray used for washing after developing. Take the print from the developer with the hand used for developing and drop it into the wash water. Then grasp it with the other hand and rinse it slightly before placing in the hypo.

If it should so happen that you are using paper which curls when very dry and is therefore difficult to slide into the

developer, it should be straightened by laying on a blotter, or clean paper, and drawing a ruler along the back. It is good policy to flatten enough paper (if it is necessary) for the number of

exposed print in the developer, taking every care to immerse it completely. Now watch results. If it flashes up quickly and gets too dark before it can be removed, it is overexposed. Should



PORTRAIT OF MRS. J. W. H.

Chicago Salon.

Sarah C. Sears, Boston, Mass.

prints to be made, before commencing printing.

For the slower or carbon grades of paper the developer should be used full strength, as given in the formula. A strong developer is necessary with this grade of paper, to give the required contrast and pure black tones. Place the

it develop very slowly and appear weak, it is underexposed. If correctly timed, the image will appear in a couple of seconds. This rule holds good with nearly all the developing papers now on the market. For the rough surface papers, with the slow emulsion, the exposure must not be too long or the print

will develop too dark before the developer has worked well into the rough surface. Glossy paper develops somewhat more rapidly than the other surfaces, and allowance should be made for this fact.

Underexposed prints, besides developing very weak, will usually fix out either a blue or gray black, especially if insufficient bromide is used, and forced development in the strong developer will usually stain the whites.

Overtimed prints, besides being too dark, will also have a green or olive-black tone. Increasing the length of exposure and adding more bromide will change the tone to a decided olive color. The increased amount of bromide will cause development to take place much more slowly than with the normal developer, and when large quantities are used it may be ten or even twenty seconds before the image appears at all. When large amounts of bromide are used in the developer, the image when first appearing will have a rather red color, which will change to an olive as development progresses.

Very artistic tones may be obtained by adding an excess of both an accelerator and a restrainer to the developer. Make a ten per cent solution of carbonate of ammonia and one of bromide of ammonia of the same strength. Equal amounts of each added to the developer will produce very pleasing tones, ranging from olive to sepia and red. The method is good for olive and some shades of brown, but is hardly successful for the sepias, as the whites are not clear and the print will be flat and smoky. The amounts to be used of each, say, in four ounces of normal developer, range from one-quarter ounce to an ounce. As the amount is increased the exposure must be lengthened also. The larger the amount and the longer the exposure, the more sepia or red will the tone be. The prints develop quite yellow, and dry darker after being fixed and washed.

Development in all cases should be stopped a shade lighter than the finished print is required, as the prints dry

slightly darker. It is a good practice to use enough bromide, even when pure black is wanted, to give the image a slight olive tint as it comes from the wash water. It will lose the olive tint as it dries and be a warm black, which is much more brilliant than the blue black caused by not rinsing enough restrainer.

The developer which I have found to be the most practical for sepia tones is as follows:

SOLUTION NO. 1.

Hydroquinone	144 grains
Metabisulphate of potash.....	72 grains
Water	20 ounces

SOLUTION NO. 2.

Dry sulphite of soda.....	1 ounce
Dry carbonate of soda.....	¾ ounce

Use one ounce of each and five ounces of water to develop. Add a few drops of bromide if necessary.

With this developer the prints must be exposed from three to six times as long as for black tones with ordinary developer. Development is very slow, often requiring several minutes. The prints develop yellow, but dry sepia, with clear whites.

(This formula is copyrighted, and permission to publish must be obtained from the writer.)

The portrait, or fast papers, are handled in practically the same manner as the slower grades, except that much less exposure is needed. The developer may be used full strength, but softer results are obtained by reducing from one-quarter to one-half with water. Prints develop very slowly in the weakened developer, and the bromide must be handled judiciously to prevent staining the whites and to secure pleasing tones.

Among the various developers which I have found effective and practical, the following are a few:

With carbonate of potash:

Water	64 ounces
Metol	1½ drams
Sulphite of soda.....	.8 ounces (crystal)
Hydroquinone.....	.6 drams
Carbonate of potash.....	¾ ounce

Use one-half water for portrait paper, and sufficient bromide to hold the whites and give desired tone.

With Amidol:

Water 4 ounces
Sodium of sulphite (dried).....100 grains
Amidol 20 grains

Add from five to ten drops bromide as required.

There are numberless formulæ which give good results, and the worker can certainly choose one from among them which will give satisfaction. I give only those which I have used for large batches of prints and know to be good.

ADDRESS BY G. CRAMER AT THE NATIONAL CONVENTION.

I am glad that I have words to say that I rejoice that I belong to this honorable association. What would I have made had I not been a photographer — not knowing the best people on earth?



E. K. Ehrman,

Oak Park, Ill.

SECOND PRIZE.



PORTRAIT OF A GIRL.

F. J. Von Rapp, Philadelphia, Pa.

Chicago Salon.

[A voice: "That's right."] I have always been proud of that. It gives me the greatest pleasure when I travel through the United States and meet you all. As a member of this association I have a passport which carries me into any photographic shop or studio, no matter how small or how big it is. I always find friends everywhere. I now offer three cheers to all my friends, and may they always prosper and be "So happy." I can't say any more. I put my whole soul into that. I want you to take that word home. Friend Holinger is "all right," and Papa Cramer is "so happy." Whenever you have an opportunity to get angry do not let that anger control you. Just think a minute and say, "I am so happy." If you keep on saying that a good many times I think you will finally convince yourself of it, by a sort of hypnotic suggestion, or Christian Science, or whatever you choose to call it. [Laughter.] Be happy and let that happiness communicate itself to all your surroundings. If you will just remember that, you will take home from this convention in that alone enough to fully compensate yourself for your time and

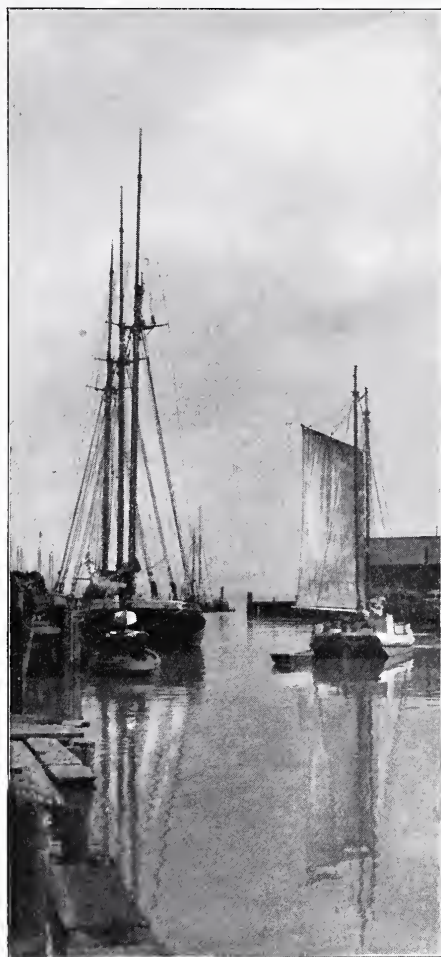
money. I thank you. [Applause. Cries of "Hitchcock!" "Hitchcock!"]

President Core: Before Mr. Hitchcock commences — you know we want

Mr. Todd: It is original, but not by me. It happens to fit in at the present moment with some of your ideas, namely:

"I am so happy when wrong or when right;
I am so happy in darkness or light;
I am so happy up hill or down;
I am so happy in country or town;
I am so happy in land or sea;
I am so happy wherever I be;
I am so happy when here or when there;
I am so happy when 'tis cloudy or fair;
I am so happy when good or when bad;
I am so happy when others are sad;
I am so happy in smiles or in tears;
For I have been happy for eighty-five years;
I am so happy — this is my song,
I am so happy all my life long;
And if in the future I happen to die
And roost with the angels up in the sky,
I'll telephone down to Hades to you,
And say, 'I am so happy!
And hope you are too!'"

WILL CUNDILL.



AT THE WHARF.

C. Knight White, San Francisco, Cal.

Chicago Salon.

to reserve some good things for the last — there are one or two other little things that will not take but a few minutes, and as Mr. Hitchcock is a very gracious gentleman, I know he will give way for the present. We will first hear from Mr. Todd, who has a little poem he wants to recite. I believe it is original, but I do not know.

EDITORIAL TABLE.

FROM George K. Hazlitt & Co., Chicago, we have received a copy of "Improving the Negative by Intensifying, Reducing Spotting, Etc.," which we find to be a very practical handbook and deserving a place in every photographic library.

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Negative by Sara W. Holm,

FIRST PRIZE.

Sedalia, Mo.

THE PHOTO-BEACON.

EDITED BY F. DUNDAS TODD.

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VOL. XIII.

NOVEMBER, 1901.

No. 11.

NEW BOOK BY THE EDITOR.

The editor has written a new book, which has nothing at all to do with photography. For twenty years he has bothered himself with the question, What am I here for? and only lately found an answer. If you are interested in what he thinks about life in general, get the book, but unless you can stand some pretty hard knocks, do not read it.

It contains, among other things, a very clear definition of morality, consideration of which provides the absolute proof that socialism is coming, and shows the ideas of the anarchist and communist to be absurd. See advertising pages for particulars.

LONDON VS. CHICAGO.

A COMPARISON AND DEDUCTIONS THEREFROM.

In last month's issue I drew particular attention to the fact that New York and its vicinity was practically unrepresented at the Chicago Salon, and hinted that in the West this fact might be construed that those interested in pictorial photography in the East were ambitious to "queer" the Western salon. One whose name bears considerable weight in the photographic world writes me protesting very strongly against my assuming any such idea, and insists that there were certain good and sufficient reasons why these gentlemen did not make any contribution to the Chicago Salon this year. These he does not specify, but on investigating those who are in touch with Eastern workers I am told that lack of time and opportunity was in all probability the sole

reason of their seeming negligence. But, on looking into the English journals that have just come to hand, I find some rather interesting statistics. For instance, in the London Salon just opened there were in all 111 exhibitors, of which no less than 34 were American. In all, 284 frames were hung on the walls, 104 of these being from the United States, and rumor has it that a little over 800 frames were rejected. I am unable to trace all the 34 individuals who exhibited from the United States, but here is a list of most of them. Opposite each name I have placed first the number of pictures they have exhibited in London and in the next column the number in Chicago.

London. Chicago.

Holland Day.....	4	7
Alf. Stieglitz.....	5	0
J. T. Keiley.....	2	0
E. L. Steichen.....	7	0
R. Eickemeyer.....	4	0
Frank Eugene.....	1	0
Eva L. Watson.....	6	4
Theo. M. Edmiston....	3	0
Mrs. Kasebier.....	6	0
J. Ridgeway Moore....	2	3
Clarence H. White....	11	0
Mathilde Weil.....	4	0
Miss E. Spencer.....	2	0
C. Yarnell Abbott.....	5	4
W. B. Dyer.....	3	6
Arnold Genthe.....	4	1
Edmond Sterling.....	3	2
Miss K. S. Stanbery....	2	0
J. C. Strauss.....	1	0
F. K. Lawrence.....	1	0
A. E. Becker.....	1	6
Mrs. G. A. Stanbery....	1	0
Prescott Adamson.....	1	1
J. G. Bullock.....	1	0
T. O'Connor Sloane....	1	0
R. S. Redfield.....	1	0
S. H. Chapman.....	1	3

The above figures speak for themselves. Why this thushness? Why did these individuals go outside of their own country to secure for their pictures artistic recognition? Was it because they considered the hall-mark of London as being superior to that of Chicago? If they did, the following figures may interest them. Chicago rejected as many frames as were thrown out in London and hung one hundred less, so that at first blush the work submitted in Chicago was either much inferior to that submitted in London or the Western jury was more stringent in its standard of excellence. Again, one exhibitor submitted the same prints in London and Chicago. All were hung in the English Salon, but only one was considered to be up to the standard in Chicago. Ergo, the standard was apparently a higher one than in London, so that the Eastern exhibitors, if they are desirous of having the highest stamp impressed upon their products, in future ought to send them to the West, where the standard is high, and not to England, where it is apparently lower.

Moral: Imported goods are not always better than domestic.

F. DUNDAS TODD.

THE SAN FRANCISCO SALON.

Arrangements for the second San Francisco Salon, which opens January 9, 1902, are well under way, and the complete prospectus has been issued. Copies can be had by application to the Executive Committee, 819 Market street, San Francisco.

Nothing beats a salon for learning quickly how much you do not know.

"WOODLAND AND MEADOW" is the title of a very handsome book by W. I. Lincoln Adams, descriptive of the charms of a New Hampshire farm. It consists of a very readable number of essays on such subjects as "In the Sugar Camp," "The Hay Field," "Harvesting the Corn," "When It Rains," "Winter Days," etc., and is illustrated by some sixty photographs. Published by Baker & Taylor Company, 33 East Seventeenth street, New York. \$2.50.

PICTORIAL COMPETITION NO. 41.

Portraiture is not generally considered the trump card of the amateur photographer. In fact, it is generally supposed that in this field of photography he generally breaks down. Three years ago our portraiture competitions were generally very poor indeed, but each year saw decided advance. The culmination lies with the latest. Out of 330 prints sent in, the judges have no hesitation in saying that ninety per cent of them would have stood a very good chance of winning first prize only three years ago, while a very considerable proportion would have been in the first rank even last year. Our readers are evidently studying very closely the pictorial principles that have been set forth in the magazine during the past year, and such results give the editor a world of encouragement to follow up this line.

It need hardly be said that where there was so much good material, the judges found the selection of the best three no easy task, and again and again they expressed regret that they could not award at least ten prizes. Many of the pictures that were turned down in the final round lost their chance because they were less portraits than figure studies.

The first prize was awarded to a very charming group which is characterized both by originality and excellent pictorial taste. Our readers should give special attention to the composition of this picture, as it will repay very serious study on account of the admirable spacing throughout and the naturalness of the posing.

The second prize picture is also a charming bit of composition and at the same time is a very natural pose of a young child.

It was only by dint of great perseverance that Mr. Taggart won his way into the ranks of the prize winners, but now he seems determined not to let a single month go past without a position there, and that, as our readers have noticed, not infrequently the first. This time he is placed third with a capital bit of characteristic portraiture, which in spacing, pose, expression and lighting

is very excellent. We sincerely trust that every one of our readers will buckle down just as steadily and persistently to these competitions as did Mr. Taggart for at least two years, until they push themselves alongside of him, and then

Third Prize — James E. Taggart, Delaware, Ohio.

PARTICULARS OF PRIZE WINNERS.

First Prize.—Made in January with long focus Premo on Stanley plate with



Neg. by Mrs. W. W. Pearce,

Waukegan, Ill.

SECOND PRIZE.

we will have a battle of giants every month.

PRIZE WINNERS.

First Prize — Sarah W. Holm, 617 Ohio street, Sedalia, Missouri.

Second Prize — Mrs. W. W. Pearce, Waukegan, Illinois.

largest stop of lens. Exposure three seconds. Printed on Willis & Clement's platinum paper.

Second Prize.—Taken in September by light of ordinary window on Cramer Banner plate. Printed on Willis & Clement's platinotype paper.

Third Prize.—Made on Stanley plate, No. 8 stop, four seconds' exposure. Printed on red chalk carbon.

FUTURE COMPETITIONS.

Competition No. 43 — Landscapes. Closes November 30.

Competition No. 44 — Flower pictures. Closes December 31.

RULES.

1. There is no restriction as to the number of pictures to be sent in. On the print there should be written the title and sender's name and address, but nothing else. Accompanying, a letter or postcard should be sent us, giving full particulars of date, light, plate, stop and exposure given; also the printing process.

2. Mark outside of package with number of competition. Ordinary letter rate must be paid where descriptive matter accompanies prints.

3. Prints are not returnable.

PRIZES.

First — Books to the value of \$5.

Second — Books to the value of \$2.50.

Third — Books to the value of \$1.

Any books, on any subject, or if preferred, any article we can buy in Chicago.

PICTORIAL PHOTOGRAPHY AT THE ST. LOUIS EXPOSITION, 1903.

It may be fitting if I draw the attention of my readers a little more particularly to the copy of the letter that appeared in the August issue, sent by Mr. Julius C. Strauss to the managers of the exposition on this subject. In his letter Mr. Strauss suggested the absolute divorce of photography as an art from photography as a department of industry, and to emphasize the distinction by having "a special building devoted exclusively to pictures produced by photography, whether made by amateur or professional photographers, provided they gave evidence of artistic feeling."

Those who have visited expositions will remember that photography has invariably been considered as a branch of

manufacturing, and was, accordingly, grouped with all other trades. Protest has been raised against this classification again and again, but the managers of expositions persistently refused to accept the suggestions made by those who were especially interested in pictorial photography. The consequence was that the best photographic workers in the world have steadfastly remained aloof, and so the very best examples of pictorial photography have never been exhibited at general expositions.

It is to be hoped that the managers of the St. Louis World's Fair will inaugurate a new departure. If they do, I think it may safely be said that in their pavilion salon they will have the finest collection of pictorial photographs that was ever brought together. Every friend of the art must desire to see this step of advance, but it can only be secured by impressing the managers with the importance of the subject, and this can best be done by every photographic society passing resolutions requesting the holding of a photographic salon in a special pavilion at the Louisiana Purchase Exposition of 1903 and by sending a copy of these resolutions to the managers. Also, those individually interested should write a letter embodying the same idea.

Mr. Strauss, the originator of the proposal, is working enthusiastically on the subject and will be glad to hear from every one interested, and will gladly consider every suggestion that is made to him.

F. DUNDAS TODD.

SOUVENIR OF THE SECOND CHICAGO PHOTOGRAPHIC SALON.

We have selected one picture by each of the exhibitors in the salon, fifty-eight in all, had them reproduced and printed on heavy enameled paper, and handsomely bound in portfolio style. This is the only opportunity photographic art lovers will have of securing the best pictures of the year in such a form, and at the low price of 50 cents the small edition ought to be quickly disposed of. We have a few copies of last year's souvenir at the same price.

THE CHICAGO SALON.

The West is big, not bigoted. It gladly welcomes to its vast prairies all sorts and conditions of men. On its fertile plains are to be found representatives of every race, occupation, religion and mode of thought. Its characteristic feature is catholicity. It realizes that in every opinion, in every custom, in every religion, in every philosophy there is much that is good, and that in no one can be found perfection. It pro-

vides the arena that may be safely defined as the battleground of modern thought and ideas. It gives a fair field and no favor to every one, believing that out of the conflict will emerge an eclecticism that will be nearer the truth than anything that has preceded it.

This being the nature of the West, it was not to be expected that it could tolerate for any length of time an ideal of photographic art that was single-minded, possibly narrow-minded. Such a con-



Negative by Lewis D. Phillips.

THE HARBOR MASTER.

ception was altogether out of harmony with its genius, and so it resented very decidedly the impressionism that was the predominant note of the first Chicago Salon.

In preparing for a second salon, Chicago, as the metropolis of this great, broad-minded territory, determined that it must in future exhibitions be in sympathy with the great Western ideal; that it should not in its salon cater to only one phase of pictorial aspirations, but that every one could be represented, and so its jury of selection was arranged after long consideration, of as varied and able a body of men as it was possible to secure. Once they had been appointed, the entire control was placed into their hands with but one instruction: That they were to hang on the walls whatever they deemed of pictorial value and to reject all others.

A survey of the accepted pictures demonstrates the wisdom of this course, and viewed from a purely pictorial standpoint there is little on the walls with which one can find exception, and yet the literalist and the impressionist will be found side by side. There are photographs sharp as the finest lens can make them and there are others fuzzy and lacking in detail enough to please the most extreme.

If I were to find fault with the exhibits on the whole, my complaint would be that the majority of workers did not seem to realize the importance of portraying subjects that were humanly interesting in themselves and that they are like the novelists of today who depend for their success on thrilling or shocking the nerves of their readers by touching them on the raw. There is too much of gloom, too much of the unpleasant side of life, of its sadness and sorrow; too little of the pleasantness, of the great joy there is in living to those who live right. There is lots of sunshine in this world, but out of the 130 pictures on the walls, only some two portray the existence of it, while fully three dozen exhibit nature in some doleful mood. Why should this be? There is lots of trouble in this world which we must accept because we can not

avoid it, but there is no earthly reason why it should be multiplied unto us by being thrust upon us at every step in the picture gallery. We usually get what we look for on this earth. If we look for trouble, or for what is ugly, or for what is beautiful we get it. We realize this and we are continually urging our fellow creatures to be happy and to feel good, to have a good time; yet when we make pictures we dish up to our friends a liberal amount of dolefulness and expect them to feel happy while they are studying it. Personally, I would like to see a pictorial exhibition where all that was saddening would be barred, and would hang only such pictures as would make the observer feel that life after all was really worth living.

With these preliminary remarks, I proceed to the exhibitors in detail.

Mr. Yarnell Abbott is represented by four subjects, all of which indicate that he understands decorative effect. The least satisfactory is "La Tendresse," in which, to my mind, the lines are rather stiff.

Laura Adams has an excellent portrait which is also very decorative. In "Peace on Earth" she has a capital piece of decorative composition which, at the same time, is full of human interest.

"Mid Steam and Smoke," by Prescott Adamson, is an old friend, but which is always a pleasure to see. Behind it one feels the great problem of work, and it is to be hoped that Mr. Adamson will still further follow this line, which contains so many great possibilities.

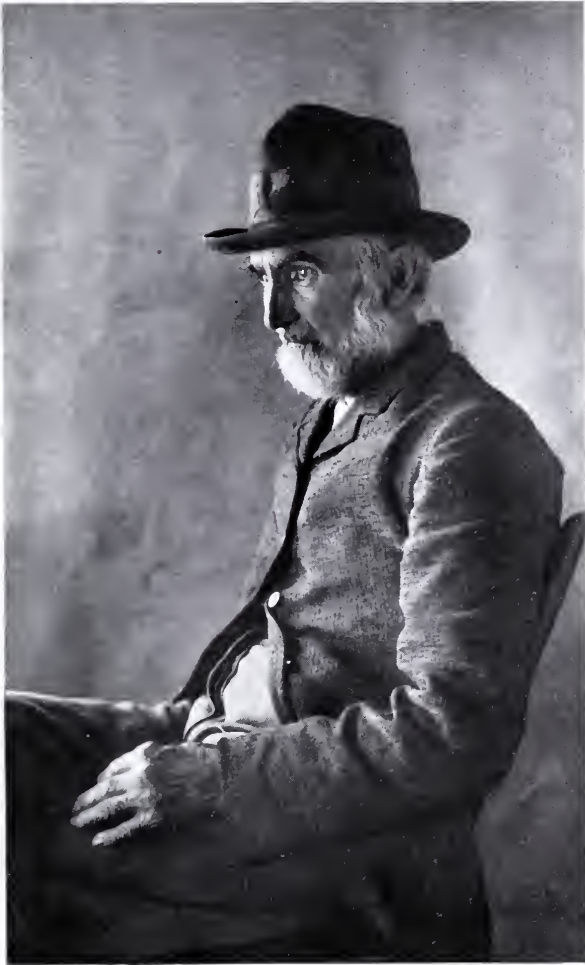
H. A. Beasley in "Peace" has a very successful waterscape.

The six pictures by Arthur E. Beeker deserve their position on account of the really clever and original composition they exhibit. Every inch of them shows forth the hand of a master in composition and light and shade, and I only wish that he would divert the same pictorial skill into a more delightful channel. Four of them are doleful in their nature, leaving an unpleasant feeling in the mind of the observer.

All the four pictures by Edward La

Velle Bourke have titles that would suggest gloom, but when we come to look at them they exhibit the pleasantest side of the phase. For instance, "Winter" exhibits that season robbed of its harshness, and one feels like en-

tures which are very attractive. "In the Refectory" portrays monks at meal time, and, in full sympathy with the subject, the composition is very formal, the needed variety being secured by the different poses of the twelve recluses.



Negative by James E. Taggart,

Delaware, Ohio.

THIRD PRIZE.

joying such a winter as is here portrayed. "A gray day in town" shows a life of strenuousness; strong men active, even although the streets are wet and sloppy, and so on with all his others.

S. Hudson Chapman has three pic-

E. M. Blaine has two charming pieces of composition with fine tone values.

The portraits by Mrs. Cabot are very natural, well lit and good in composition.

One landscape and one portrait sums up the exhibit of Elizabeth Bouwnell.

The latter represents a boy, one of the nice kind, who would move so gently round the house that the most valuable bric-a-brac would be perfectly safe. The lines of the composition are very formal in harmony with his expression, and the lighting is very subdued. Altogether, were such a boy of my family I would rig him out in old clothes and compel him to live in the woods until he developed a little of the reckless disposition that ought to be characteristic of a juvenile member of the male sex.

"Ophelia," by Essie Collins, is a very excellent piece of composition and a beautiful study in gray.

F. S. Crowell has scored quite a success with the "Yacht Cadillac."

"Afternoon on the Lake," by Dr. M. H. Cryer, is a very satisfactory piece of photography.

F. Holland Day is evidently a mystic. There are many things in this world he does not understand, and instead of looking inside the universe for causes he looks outside, and so much of his work is very mysterious. It may be all intelligible to him, but is not to many others. On one of his most pretentious pictures he has for title this:

"Beauty is truth, truth is beauty. That is all ye know on earth and all ye need to know."

This is very high-sounding and may be either poetry or flapdoodle. Let us examine it. Truth is, according to modern ideas, what has been proved. On the other hand, beauty is admittedly indefinable. It exists in connection with some natural fact, and is a characteristic of it that we can not explain. Every child appreciates it, so it is some natural instinct, but no child understands truth until it has learned it. For instance, two plus two make four. This is a truth, but it takes a child a very long time to learn the value of this fact, so that when Mr. Day says that truth is beauty he is saying what is not true, for there is mighty little beauty in the fact that two and two make four. The balance of his quotation is therefore absurd, for nobody knows that truth is beauty, and nobody will ever know it. Leaving aside his mystical

pictures, which I do not pretend to understand, I see much to admire in "A Portrait in Ozotype," which is good portraiture and good photography. "Menelick" is a splendid rendition of an ebony skin of which any one might be proud.

I think I have seen very much better work by Dr. Detlefsen than is exhibited here, though I do much admire "Through a Vale of Tears," which is a sweet study of a child's face.

Miss Mary Devens has three excellent pictures, the most interesting of which to me is "Portrait of My Nephew," which exhibits a fine, healthy boy with some of the awkward positions that the average every-day boy prefers. The lighting of the face is very good.

"The Old Home Across the Sea," by Charles E. Dewitz, is a clever rendering of sunshine and shadow.

William B. Dyer has half a dozen figure studies. All of them possess magnificent tone values and beautiful lines. Every one is pitched in a very low key of tone, and I only wish it were a little higher.

All of the work of J. H. Field is characterized by excellent composition and light and shade effects.

"Mid Fog and Ice," by L. S. Ganz, is very effective. It is a study in gray, very subtle in tone quality and well composed.

Arnold Genthe is represented by one interesting frame of a "Study of Head and Hand," which displays excellent spacing properties.

Arthur A. Gleason in "A March Sunset" happily hits off the characteristic of such a scene.

Chicago river is a very busy stream, and Frank Green, with "From the Bridge of Rush" renders it very effectively.

"The Old Mill," by William P. Gunthorp, is a very unpretentious picture, but is very interesting both from subject matter and the great variety of spacing exhibited therein.

"In close Pursuit," by Charles K. Huguet, is a good picture.

George H. Hazlitt, in "Brown October's Wood" demonstrates clearly that

fine light and shade effects are not incompatible with sharpness of definition and rendering of detail.

S. Stockton Hornor, in "An Off-shore Breeze," has a fine rendering of a sand-dune. "Caroline" is a portrait, good in composition but too flat for my taste.

William F. James decidedly scores with "In the Blizzard." "Tuesday" shows ironing day and is excellent in composition and light and shade.

Herman Knutzen has found much of beauty on the river banks near Chicago, and depends on good photography, good composition and light and shade in his work.

"Evening," by George F. Kunz, is a very peaceful, restful little picture indicating great taste in composition.

Louis A. Lamb has two pictures, one of which, "From My Study Window," is one of the most original things in the salon.

Of the four pictures by Francis Watts Lee, I care least for the "Convalescent." So sickly an individual really ought to be in bed. His portraiture is very good.

"Homeward Bound," by Charles H. MacDowell, shows how an eye for decoration can make a very good picture from simple material.

Oscar Maurer has a big success in "A Foggy Day." It is fuzzy enough to please the most ardent impressionist, but still is true to nature's facts.

"The Passing Shower," by George C. Meeker, exhibits very distinctly the three planes of foreground, middle distance and distance that are so hard to get by means of photography.

F. E. Monteverde has two pictures, both very good. He undoubtedly possesses an excellent eye for decorative effect.

J. Ridgeway Moore's work is very good photography and as good pictorially.

In "The Straggling Flock," M. McNaughton sets a standard for sheep pictures that demonstrates the possibilities of such by means of photography.

"April," by William L. Page, is a simple landscape subject arranged ac-



Neg. by Sara W. Holm,

Sedalia, Mo.

cording to Japanese ideas of composition.

Most salon frequenters would deem it almost impossible to find on the walls a flower picture. J. Dwight Palmer has one entitled "Roses," which very properly won its position by its beautiful rendition of the blossoms.

"Sand Dunes," by H. P. Parker, is very simple in composition, consisting practically of one bold line, but it is very good.

Both of W. B. Post's winter subjects are very simple in their character but are just as successful. The composition is good and the snow effect is worked out in a delightful scheme of grays.

Dr. H. D. Power is represented by

two frames. "A Philosopher" is good portraiture, but somehow the expression does not appeal to me as being that of a philosopher.

Virginia M. Prall has six frames on the walls, two of them, "Be it Unto Me According to Thy Word" and "Consolation," are studies in white inclined to be wishy-washy. The figure of the child in the latter shows utter collapse and it is not possible for me to conceive such a depth of grief in a young girl as is here portrayed. Of the rest of her work I prefer "Lady and Dog," which is a clever piece of composition.

A very interesting picture and really good photographically and pictorially is "Guardians of the Doge's Palace," by G. L. Reilly.

Mrs. W. E. Russell's "By the River" is an impressionist bit of decoration.

Eva Lawrence Schutze (*née* Watson) has three very interesting pictures, all of which exhibit good composition and good tone values. "The Song of May Apple" is the title of a fourth which exhibits an apparently very intellectual bare-headed individual playing a violin in an open field. Why?

Walter A. Scott has three decidedly good pictures. To me "An Interesting Moment" appeals the most because of the cleverness exhibited by the photographer in breaking up three very formal spaces by the arrangement of interesting material.

Mrs. Sara C. Sears has two very good portraits, although I object to the head of the child being so large that it looks like a grown person.

"The Gleaner," by Frank Snyder, is a very interesting simple pictorial composition.

Edward Sterling is still enamored of three tones. "The Pattern" as a piece of decoration is very good, but it makes one wonder why a lady should endeavor to match fabrics in twilight when illumination is probably accessible.

"The Passing of the Storm," by W. J. Street, exhibits splendid pictorial effects, but the sea is very poorly rendered and looks as much like sand or prairie as it does water.

All of the work of Henry Troth is

very pleasing. His composition is always good and so is his photography. He condescends to no tricks and thus proves himself a master.

"Homeward Bound," by F. J. Von Rapp, is a happy rendering of a rural scene. The "Portrait of a Girl" is also good.

"At the Wharf," by G. Knight White, is a rather formal piece of composition which is in full accord with the nature of the subject and the impression of rest that it is desired to convey.

"Marshland," by William L. Whitson, is a very simple piece of composition, but is good.

Myra Albert Wiggins has a very interesting family scene in "The Babe."

"Amongst the Pumpkins," by Arthur W. Wilde, has an atmospheric effect that suggests autumn very well indeed.

"My Sheep Hear My Voice," by Henry S. Williams, is rather formal in composition, but the interest of the subject and its photographic value entitle it to a place on the walls.

F. DUNDAS TODD.

PORTRAIT POSING AND LIGHTING.*

BY J. H. VANDERPOEL.

Head of the Department of Figure Drawing and Painting in the Art Institute of Chicago.

CHAPTER IX.

Continuing the study of planes, it will be noted that in the head their merging off varies in angularity, or roundness, in keeping with the bony and fleshy nature of the part at the location of the transition from one to another. In the strongly marked head of a man, strong in its big bony formation (not referring to minor markings, such as wrinkles, and the smaller muscles that descend from the inner corner of the eye, nostril and corner of the mouth), the transition of planes will average a certain degree of sharpness and angularity in contrast with the roundness of modeling of equivalent planes in the head of a child where the only accent or sharpness is found in the details of the features.

Fundamentally considered (no matter from what source the nature of the

*Copyright, 1901, by F. Dundas Todd.

light, high or low, broad or narrow, or open or screened) a head should be so lighted that the big structure and substance shall first receive projection. The cube, with its three visible surfaces equally lighted, looks flat; but a slight

planes is apt to elude observation. There are several reasons for this difference of impression. First, the fact that the transition of planes in the head is less marked than in the cube; second, the cube offering but little to the imagi-



FIG. 39.

Note the broad separation of front from the side and top of the head with the features just sufficiently accented without being either weak or too insistent. The head models superbly from the background, and yet plainly shows its third dimension. Also note the treatment of the outlines of the head against the background sharp and defined at the crown, cheek-bone and chin, also here and there a touch about the ear, with the rest graduated and modeled into darkness.

raising of the source of light to one side or another gives a different value to each plane, these values being further accentuated by their defined boundaries. In the head, however, though similarly lighted, the existence of these varied

nation beyond its geometrical structure, it is readily analyzed. Not so with the head; it is so full of suggestion through the nature of its forms, colors, action and expression that when we consider it for pictorial purposes, too much is

apt to be taken for granted. We know that our friend exists, but when considered pictorially it must be proven. Why is it that so many photographers fail to portray the man or woman in the largest sense? Why are they so sure to convey a weak and commonplace side of a sitter? Because too often a photographer's intelligence of the artistic does not go beyond an attempt to photograph a collection of features, such as the eyes, nose, mouth and at least one ear, rather than portraying the head containing the features. The photographer knows the head exists, yet takes too much for granted, forgetting that the camera has no consciousness and only responds to the operator's degree of intelligence.

The facial plane of a head is naturally the most important, containing, as it does, the eyes in their sunken orbits, the projecting form of the nose, and the mobile mouth; then the bony forms and planes that make the forehead, cheek bones, the jaw and chin. The minor surfaces in the facial plane might be divided into four kinds: First, such as embraces the forehead, front of cheeks, length of upper lip, top of nose, thickness of lower lip and the top of chin, all facing upward in various degrees and receiving, due to their exposure, the full volume of light; secondly, the orbital planes containing the eyes, the under surface of the nose, thickness of upper lip, depression below of under lip and depth of chin. These surfaces in turn face downward and in consequence are found in shadow. The forward pressure of the teeth affects the lower region of the face sufficiently to throw the plane containing the lips and chin backward, and is the cause of the amount of half-tone found in the lower part of the face. This plane is very marked in the child, the chin being a mere variation in it, but in the adult the plane, though still existing, is less visible, while the chin is more prominent.

The source of light in nature is from above, with its center of power away from the sun at an angle of forty-five degrees. The artist, as well as photog-

rapher, so constructs his studio as to procure his light at this angle, to be diverted by artificial means, as his motive or problem requires. There is considerable disputation as to what form of skylight gives the best result. Of this more will be said later, scientifically as well as artistically. Accepting the angle of forty-five degrees as the average source of illumination, it becomes interesting to study the respective luminosity of the various parts, or planes, of the face exposed to it, as well as the location of the planes constituting the head, diverting them into two masses, one of light and one of shadow.

To reach the very foundation of head structure and to realize its planes in their simplest manifestation, imagine a sitter in a room entirely devoid of light, all color values of face, collar, black coat and background absorbed in the gloom. Now emit (figuratively) a stream of light from the single and narrow source of a dark lantern, which shall fall full upon the sitter's face at an angle of forty-five degrees. This experiment is doubly instructive as it expresses the need of breadth and simplicity in the masses of light and shadow in order to procure true projection. The single narrow source of light, there being no cross lights, illumines the planes in perfect ratio to their angle of exposure. In spite of all the variety of planes in the light portion of the face, it appears to reflect a general luminosity, not unlike the face of the moon in a dark sky, only that it has a truer sense of projection. The light, in passing the head, is dispersed in the darkness of the room and hence, there being no reflected lights the shadows equal the gloom in intensity, except where a reflection from a part of the face below a shadow may give it slight variety. The middle of the top of the forehead, bridge and end of nose, will receive the highest light. Inasmuch as the forehead is less wide than the head just above the ears, the temples receive some of the slanting rays, becoming considerably toned, but still in the light, but the sides of the cheeks will be in shadow and merge with the side and back of the

head into the darkness of the room. The effect will be of strong relief, but only slight in projection—that is, the face will model and yet the head keeps its place in space. (Of this again later, when speaking of backgrounds and tone.)

throw the whole of one side of the face, including the temple, in shadow. This lighting is equivalent to the examples of the cube, so lighted as to show three planes of different tone, none of which should be in shadow. This lighting gives true projection



FIG. 40.

This head is in tone against a light background, yet models in its big planes, hence the bulk and substance of the head is strongly felt.

The position of the light might now be moved horizontally at intervals along the arc of a circle, and at each change the effect should be noted. The first change might be far enough to

through the big planes and does not over-model the minor ones. Let the operator remain close to the right or left of the source of the light in making his observations. Again, it is artistic

because the shadows about the features and those cast by them are confined to a minimum space, particularly that of the nose. The confinement of the shadows to the features means that the center of the source of light falls squarely upon the face and brings out its big qualities without losing the essential minor ones. On the contrary, if the shadows about the features are unduly elongated, the simplicity of the masses of light is destroyed and unessential detail over-modelled, all due to glancing light, betraying that the constructive planes were insufficiently considered. The nose is the key to the situation and the safest guide; its deep projection beyond the face causes any shadow cast by it to respond quickly to the least movement of the head. When the shadow cast by the nose is confined to its base the illumination can not help being good artistically, because it brings out the head in its breadth and bigness.

Continue to move the light slowly at this point, and observe how the lengthening shadow of the nose is cast in triangular form upon the cheek. The stages between the confinement of the shadow to the nose and the merging of it into the shadow of the cheek, means bad and inartistic lighting. The reason is that the region of the face bounded by the base of the nose, the sides of the lower part of the cheeks and chin is full of minor modelling, and of so mobile a nature that the least variation in expression alters the character of this modelling. So subtle is its quality that if glancing rays of light preponderate it results in over-modelling of the detail that bespeaks and anticipates the signs of age, to say nothing of the destruction of a few simple tones by the cast shadows of the nose, lips and corner of the mouth. When the shadow of the nose becomes fused with the shadow of the cheek the illumination again becomes good, because the edges of the shadows are true to big planes.

I HAVE been a regular and careful reader for more than a year and have received much helpful instruction therefrom.

R. G. LOBB.

VOIGTLANDER AND I.*

BEING THE REMINISCENCES OF JAMES F. RYDER.

CHAPTER X.

CHAGRIN FALLS.

I found Chagrin Falls to be a cheery, sociable and charming village. Dr. D. W. Bliss, who will be remembered as surgeon to President Garfield through his long suffering from the assassin's bullet, invited me to come to the Falls and start my business. He introduced me among his friends and kept a friendly eye on me. He asked me one day to drive over to Gates' Mills, a charming spot three miles down the river, to visit his neighbor and chum, Dr. Tom Moore, an Irishman proud of his country and proud of his name — genial, kindly and tender of heart, voice soft and brogue most delicious. It was a joy to see "the two o' them" together — a happiness to me to make the third. "Here's a health to thee, Tom Moore." Gates' Mills helped to make Chagrin more delightful, and visits were frequent.

At the Falls I lived at Bayard's Hotel, a pleasant village inn, a stage house station on the Cleveland and Pittsburg pike. The mail was carried upon the coaches of this line and their arrival each day was an event. The Bayard House brightened up at the sound of the welcome horn before the coach drove in sight. Old General Knox brought his chair out upon the porch of the hotel, followed by guests or frequenters of the house to witness the arrival of coach and passengers. The Bayard boys hustled out their cart to receive and rush the mail bag across the bridge to the postoffice, where Mr. Shaw, the village postmaster, stood in the door to receive it.

Henry Breeze, a typical joker and the admiration of the town, drove one of these coaches. As he came winding down the hill his horn awakening echoes up and down the valley and resounding from the hilltops, made a pleasant sound. In his line, Henry was an artist. When he came in sight at the turn of the road, he and his splendid



FIG. 41.

Such part of the girl's face as is not in shadow is in general half-tone as opposed to the side of the head. The edge of the half-tone near the light repeats exactly the form of the opposite angle of the cheek, brow and jaw, enclosing the plane of the face as distinguished from the side of the head. On the other hand, the face in the man's head is in full light with the side of the head plainly detached from the front showing the difference in accentuation between the more angular or bony parts of the head, and rounded and fleshy parts.

four were a picture, fine tassels of white hanging from every headstall, big white rings of bone—in places doubled—trim the harness and hold the reins as they passed through them. A cowboy air as to hat, rather broad in brim and turned straight up in front, proclaimed championship for Henry as driver. As

he came swinging down the road to the passenger porch of the Bayard Hotel, it seemed the easiest thing in life to come straight alongside and stop, but that would be too easy for Henry; he would swing his long whip in a circle above his head, his leaders would take a sweep describing a circle to the outer

opposite side of the street, and on a run back across to the porch and come to a sudden stop, the body of the coach rocking and pitching like a punt in a choppy sea, the off leader in the meantime going up on his hind feet and pawing the air with his fore, Henry pretending not to notice the trick he had taught his pet to do.

Other drivers there were, safe, faithful and sure, who drove on the line and stopped in their turns at the house. But for showy, dare-devil air and smooth finish Henry was head and shoulders above all.

The Chagrin River (Indian for angry) went rushing and tumbling through the village. It seemed a capricious stream, indulging in fierce plunges, merry jumps, sudden whirls, dashing leaps, gentle ripples and calm, well-behaved placidity—all within a mile, and incidentally turning wheels which furnished power for axe factory, machine shops, paper mill and woolen factory, thus contributing to the industry of the village and lending a hand to enterprise, for which the little town was noted. It helped to make fortunes for a number of men.

I was very fond of the river. I loved to saunter along its banks and enjoy the moods it offered, so much of variety and the picturesque did it present. I loved the liquid talk it made as it clambered over the stones which lay in its way—the gurgle and chatter seemed to me like a musical conversation between water and stones. As we sometimes find forms, faces and figures in a burning grate and grotesque images and animals in the western sky, so I found voices in the water. When at leisure or when studio hours were over, I walked down to the rapids to see what the water had to say. Like the sea which presents new phases each day, so I found the water to tell a new story or sing a new ditty.

Farther down, the stream took on a more rugged phase, wilder yet not less interesting in beauty. And here was the sculptured rock. At this point the water was deeper and more silent. The trees reached their branches down far-

ther and their bodies leaned over the bank toward the opposite side, where straight up from the water rose a smooth, flat-surface rock like a wall. It was discovered by some one that the face of this rock bore carvings—representations of birds, animals, and, most wonderful of all, Mother Eve was shown reclining, and, as though guarding her, was the serpent. By whom this work was done or when was a mystery. The general belief was that it was the work of Indians before white men inhabited the wilds of Ohio.

A legend handed down “straight as a string” from father to son, of the tribe of the Cuyahogas, was to the effect that a young “brave,” son of the chief, had wandered from the camp of his tribe upon the banks of the Cuyahoga River to the cascades of the Chagrin, upon whose banks he found an Indian maiden to whom he gave his heart. The brave thought her beautiful. Tradition has it that the babble of the rapids was taken up as an echo of the love-making between them, and the delighted water then started has kept it up ever since in memory of the wooing.

The sculptured rock is alleged to be a valentine carved by the brave—an outpour of his heart to the maiden. Tradition farther says upon a fine October day “at high noon” was solemnized the nuptials of J. Marmaduke Sunshine and Lillian Maud Wade-in-the-Water, the ceremony being performed by the chief of the Cuyahogas. The bride wore “frills and feathers.” The groom was clad in doeskin, garnished with scalps. The decoration was the glorious foliage of the forest, painted by October suns and harvest moons.

The happy couple went by canoe on a three weeks’ trip to their cousins the Maumees, and were “at home to their friends” on their return.

I am indebted for the above to a talented member of the “Artemus Club” of newspaper reporters, who claimed to have it from “an honest Indian,” a true descendant of the distinguished parents.

I confessed to the reporter that it seemed a pretty story and was no doubt

true. "True," retorted the man of pad and pencil, "that Indian has the arrow-heads to prove it. If you doubt it in the least you can take the first trolley to Chagrin and interview the talking rapids, and there stands the rock with the zoölogy still upon it."

"Well," said I, "where did you find the Indian, and what is his name?" "His name is Ti-ock-ne-o-ga Joe, and he is one of Buffalo Bill's stage robbers." I saw him last summer.

The young people of the village took me in as a worthy addition to their circle. Of the young ladies I met, I soon found one to be "the dearest girl in the world." To a young man early in his twenties this is not an unusual happening, so I justified myself in finding Chagrin Falls to possess every charm a dear, bright village could be possessed of. A certain cottage seemed to be the heart of the town and shed a pleasant glow upon all within reach. The porch, the hospitable seats thereon, the entrance gate swinging in toward the cottage, suggesting welcome, all contributed to voluntary enslavement of a willing heart.

In her presence I was in a halo of



Neg. by W. G. Corthell,

Wollaston, Mass.

happiness. A sweet modesty mixed with harmless witchery of mischief and innocence was the nature of that sunny girl. It was not strange that under such fascinations a susceptible and rather timid young fellow should have lost his balance — not at all strange. We were excellent friends. We sometimes wandered down to the talking rapids, I hoping the glib water would help me to say or her to understand what I would like to be said, but we returned without the "ice being broken." There is something — an unseen and unexplainable something — which cautions a man against venturing too far. I found out one day what was the matter. It was another fellow, a mighty fine fellow, who had a stronger claim, which I recognized. We became good friends — no bones or hearts were broken.

One day I boarded the stage behind Henry Breeze's prancers for a trip to Cleveland, the city I had carried in my mind for two years. I made straight for Mr. Johnson's gallery of daguerreotype portraits. I was met by a young man who struck me as an upstart — quite destitute of good manners. I thought his style of meeting a stranger,



Neg. by James E. Taggart,

Delaware, Ohio.

whether visitor or customer, was faulty. In a manner too abrupt to be courteous he asked, "Do you want anything?" I replied that I wished to see Mr. Johnson and to examine the specimen pictures. In reply he said, "Johnson is not in," and abruptly left the room.

I took a reasonable time to examine the work. While I found it good, it was not quite up to my expectations, and I was a bit disappointed.

I had seen a good deal and had progressed somewhat since the day I bought the formula for making "dry quick." Mr. Johnson did not return. I went out and took the return stage to Chagrin Falls without seeing the man I wanted so much to meet, but had learned a lesson worth the price of the trip.

PHOTOGRAPHIC PRINTING PROCESSES.*

BY LOUIS H. HOYT.

CHAPTER XI.

FIXING.

After developing, the prints are dropped into a tray of clear water and rinsed before being placed in the fixing bath. This washing should not be continued over a few seconds — just long enough to wash away the excess of developer which is on the paper. Prolonged washing will often cause the whites to fix out quite pink or yellow, sometimes with a burnt appearance. This wash water should be changed very often. If a small tray is used the change should be made after every dozen prints have been washed, at least. Running water is by far the best. I know of some printers who use a little acetic acid in the water. It would do no harm, but is not at all necessary if the water is kept clear.

When rinsed, the prints are placed in the fixing bath, and must be entirely immersed. Just dropping them in and allowing them to float on the surface will not do at all. They must be stirred about until the hypo has worked thoroughly and evenly into the film. One very serious mistake that many ama-

teurs make is using too small a tray for the fixing bath. An amateur friend of mine had been having considerable trouble with stains which he could not account for, so I called over one evening to watch him work. The first thing he did wrong was to dissolve the hypo by stirring it about with his fingers, using both hands. His prints were 4 by 5 and his fixing tray about one-half inch larger each way. To put half a dozen prints into his tray at one time and keep them properly separated was absolutely impossible. When he commenced printing he held his hands under the tap for a few minutes and dried (?) them on a towel which must have been used for a month without washing. He printed by gaslight and underexposed nearly every print. Being underexposed, they developed very slowly, and to hasten the development he rubbed the face of the prints with his fingers, which, mind you, had been in the hypo. I could not stand seeing paper spoiled in that manner, so I stopped him and asked him to read the direction sheet and see if he were following instructions. He said he was. Now, I wrote the copy for that particular sheet myself, and I felt positive he had never read it at all, except to get the formula for making up the baths, and I found out that I was right.

A hand that has been in hypo or has touched a print which has been in it should never be put into the developer or touch a print until it is in the wash water after developing. The fixing tray should be large enough so that the prints may be entirely apart. Rubbing the prints with the hand to hasten the developing, or to bring out any particular detail, is absolutely useless, and the chances of staining are very great. You can make a print and rub it all you want to; then I'll use the same solutions and make one without touching it and get as good detail in every part.

The strength of the hypo bath should be somewhat stronger than for the ordinary chloride paper. I get the best results by having it test about 40° by the hydrometer. Stronger will not hurt anything; in fact, most makers advise using it as strong as one ounce of hypo

* Copyright, 1901, by F. Dundas Todd.

to five ounces of water. These prints fix very rapidly. I have prints made two years ago that were fixed thirty seconds and washed one minute, directly under the tap, and they are good yet. I would advise fixing about five minutes. If prints are fixed too long in a hypo bath which contains alum they are apt to tone more or less, especially if the bath is warm.

All makers advise the use of an acid hardener in the hypo bath, but the advice is not generally heeded. Just why is a question, because the hardener is easily made and certainly costs very little. It is possible at times to fix in plain

main in the film or paper. Alum is used to harden the film and to prevent any frilling or blisters. Should this or any regular hardener not be used, alum alone will give the bath an acid reaction, and should be used. The sodium sulphite is to keep the bath clear. The use of the above or a similar hardener is absolutely necessary for large batches of prints. With plain hypo, brown or yellow stains are almost certain to appear, and blisters are quite common. The hardener or even plain alum prevents these troubles.

After fixing, the prints are washed and finished in the same manner as any



Photographed with Plastigmat.

hypo and luck may be with you for a long time, but sooner or later there is going to be trouble. A few cents' worth of solution will save many a dollar's worth of paper.

The hardener which I use is made as follows:

Water	16 ounces
Sodium sulphite (crys.)..	1½ ounces
Acetic acid (No. 8).....	10 ounces
Alum (powdered).....	1½ ounces

This is a stock solution. Use about one ounce of it to each pint of fixing bath. The acetic acid is used to prevent staining from developer that may re-

silver print. The washing should be thorough. Should a blister appear, it may be flattened by touching with a few drops of alum water.

Developed prints are easily toned to several pleasing colors, but to do so without staining them considerable care must be used.

The most successful way is to develop the prints as usual and fix. Be absolutely certain that they are thoroughly washed and that no hypo remains in them. I always dry them and then wash them again before toning.

Hypo-alum toning in a cold bath

takes too long and is not practical. The bath should be warmed. The amateur does not always have the chemicals for making up the various toning baths, but alum and hypo are always handy and very fine sepia and browns can be made with these.

Dissolve six ounces of hypo and one and a half ounces of alum in thirty ounces of boiling water and allow it to cool. This should not be filtered. It should be put into some sort of a cooking dish that will not crack when heated. Put the fixed and washed prints into this bath while cool and gradually heat it to about 110°. If you heat it too hot the prints will probably tone very weak and instead of a sepia the tone will be yellowish. Tone to the color desired and wash thoroughly. Dark prints should be used in this bath; as they bleach slightly. Allowance must be made for evaporation if many prints are to be toned, and new bath added to keep up the quantity.

Uranium toned prints are very pleasing, but very great care is necessary to prevent the whites from discoloring and various colored stains from appearing. My experience is that these baths will give good results only when freshly made up. It will be found very difficult to obtain pure whites with solutions that have been put up for any length of time. The bottled goods for sale by the dealers seldom give good tones, because they are too old.

A good bath for browns and sepias is as follows:

SOLUTION A.

Water 16 ounces
Alum (powdered).....875 grains
Uranium nitrate..... 82 grains

SOLUTION B.

Water 4 ounces
Red prussiate of potash....18 grains

Pour A into B and shake thoroughly. Place the print, either wet or dry, into this bath and tone until the desired color is reached. Then clear the whites in a bath of an ounce of alum to twelve ounces of water. Give the prints a good washing after the alum bath. It is absolutely necessary that all hypo be

washed out before the prints are put into this bath, or stains will result.

Another bath which gives practically the same results is made as follows:

Water20 ounces
Red prussiate of potash.....20 grains
Acetic acid, C. P..... 1 ounce
Uranium nitrate.....20 grains

The whites, if not too badly discolored, may be cleared by washing in running water, but generally the alum clearing bath or a weak solution of acetic acid is necessary. I have heard of a weak solution of sulpho-cyanide of ammonia being a good clearing bath, but can not say that it did well with me.

For blue tones three solutions are necessary, and as the keeping quality of the bath is very poor, they should be combined just before use.

A.

Citrate of iron and ammonia.....100 grains
Water 2 ounces

B.

Red prussiate of potash..... 50 grains
Water 1 ounce

C.

Nitric acid, C. P.....200 minims
Water 4 ounces

Combine these in the order named. Tone to the desired color and wash in clean water until the whites are clear. This bath tones very rapidly. The toning should be done in a weak light, as the solution is sensitive. The addition of 100 grains of uranium nitrate to the above bath will give a green tone, but it is difficult to wash the prints without bringing them back to the blue. There are numberless methods for developing and handling these papers to produce different results, and I could go on and fill many pages more, but the formulæ I have given will produce any print that is possible, so it would be needless.

There need be no failures if care is used. I want to impress on the beginners, and caution some of the older workers who grow careless, that absolute cleanliness is necessary to success. Chemically clean trays, a new towel occasionally, and so on, will soon prove to you that many troubles are of your own making.

BEGINNERS' TROUBLES.**CHAPTER X.****ENLARGING WITH BROMIDE PAPER.**

The merits of enlarging on bromide paper are quite generally recognized; yet the process is practiced by compara-

to gain the trade, but those who make enlargements seem to have no trouble about keeping busy. Just why it is not more extensively practiced by amateurs it is difficult to say.

The large majority of amateurs use cameras not larger than 4 by 5, and



Negative by Frank E. Bronson,

Painted Post, N. Y.

tively few photographers, either amateur or professional. Many professionals claim that there is not sufficient demand for this class of work to justify them for the work and expense of putting out samples and making an effort

when they get a negative that is really good they are sure to wish that it was at least four times as large and begin to wonder when they will be able to get another camera. Well, a big camera is a fine thing to have sometimes; but

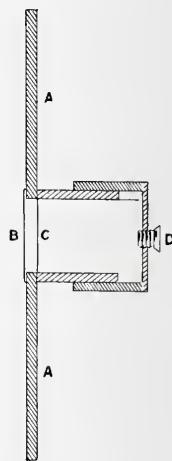
you can not carry an 11 by 14, or even a $6\frac{1}{2}$ by $8\frac{1}{2}$, as readily as you can a little 4 by 5, and when you have only the big one you are apt to leave it at home sometimes when you will miss some fine pictures. If you are rich enough to afford two or three cameras, of different sizes, you will be sure to take the wrong one with you unless you are also able to afford the services of a porter to carry them all.

From a good, sharp 4 by 5 negative an 8 by 10, or an 11 by 14 bromide enlargement, that in every respect equals, and in some respects excels, a direct print from the same negative, can be made with a very simple apparatus that any man or woman of ordinary intelligence can improvise. Such a print softens, without destroying, the fine detail that the "Fuzzies" were so strongly condemning in the columns of THE PHOTO-BEACON not many moons ago. The expense of making it need not be a penny more than for a direct print of the same size. Some brands of enlarging paper come high, it is true, but Vinco or Velox makes as good enlargements as any of them. I have never tried any other developing paper for this purpose, but I see no reason why any brand would not do just as well.

The making of a large print from a small negative differs in no way from the making of a large negative from a small positive. If you have a camera of sufficient size you can substitute bromide paper for the dry-plate and follow the directions given in last month's paper. My camera is a $6\frac{1}{2}$ by $8\frac{1}{2}$, so when I wanted to make enlargements I first had to make a camera. It took me about two hours, and cost me nothing. I will describe it and you can go and do likewise.

My darkroom has a window opening to the north, which can be removed without difficulty. I replaced it with a wide board, in the center of which I had cut a hole $6\frac{1}{4}$ inches high and $8\frac{3}{4}$ inches wide. On the inside of this I nailed a box 7 inches high, $8\frac{1}{2}$ inches wide and 8 inches long. Both ends were left open, and one of the ends was nailed

over the opening in the board, with the bottom $\frac{1}{8}$ inch below the bottom of the opening. A negative placed in this box, with the bottom edge resting on it, lost only $\frac{1}{8}$ inch at the edges; all the rest could be seen through the opening in the board. Above the negative there was a little space to spare; just enough room for a catch to hold the negative in position. Next I made a similar box, equal in length, and just large enough to fit snugly over the first one, but with one end closed. In the middle of the



closed end I cut an opening to receive the front-board of my camera. That is all. If my explanation has failed to make the matter plain, the drawing will straighten it out. *a* is the board that takes the place of my window; *b* is a sheet of tissue paper that covers the opening in this board; *c* is the negative, and *d* is the lens carried on the inside of the sliding box. This box, by the way, is a camera, and is focused by sliding it back and forth.

All you will need in addition to this is an easel on which to carry the paper. The easiest way to make one is to take a dry-goods box and set it on end on a table or stand. The paper can be fastened to the bottom of the box with a tack at each corner. Mine is built on a much more elaborate plan than that. It has a large glass front, against which the surface of the paper is held by a back, like the back of a printing-frame.

The image passes through the glass before it reaches the surface of the paper. This is a very convenient arrangement, but it is by no means essential to the making of good enlargements.

If you use the regular enlarging paper the directions will come with each package, so nothing need be said about methods of working. But if you use "gas-light" developing paper you may have some trouble at first to get the

correct exposure. It is a good plan to test each negative with a strip of paper before making the exposure on the large sheet. Part of the strip can be exposed for, we will say one minute, while the rest of the paper is protected from the light by a piece of cardboard held in front of it. Then by moving the cardboard another section can be exposed for an equal length of time, and so on till the entire strip has been exposed. If this strip is five inches long



Negative by James Escott,

Louisville, Ky.

and one inch is exposed at each time, it will have been given five different exposures and it will be seen on developing which section has received the correct exposure.

If you use a dry-goods box for an easel it will be necessary to paste or tack a piece of white paper on it to assist in focusing, as the image can not be distinctly seen on wood. This easel is moved back and forth till the desired size of enlargement is secured, then it is brought into focus by sliding the box that carries the lens to the proper position. The whole operation is so simple that no one need fear to try it, and once tried it will often be practiced.

J. EDGAR ROSS.

DEVELOPMENT.*

CHAPTER VII.

After the beginners' blunder of underdevelopment, perhaps the mistake which is most often made, and which even experience does not seem to eradicate, is that of forcing on development to bring out detail. There is absolutely no power in this direction. When you have carried development to the stage which gives the right amount of contrast, nothing you can do (or could have done after pouring on the developer) will bring out more detail. Any attempt at forcing development adds far more to the high lights than to the low tones or detail. It is the exposure which decides whether detail in the shadows shall be well rendered, and if you have exposed correctly to bring out such detail, it will (with all ordinary developers) be brought out in development before an amount of contrast sufficient for printing is attained. This even applies to such short-factor developers as hydroquinone and strong pyro, if used without bromide.

Use a developer without bromide, attend to the question of detail when exposing, and to the question of contrast when developing, and you may rest assured that if you do get want of detail in the shadows, nothing you could have done in development would have reme-

died it. Of course, if you develop too far, the detail in the shadows may appear to be lost because you have to print too deeply to render the high lights properly, and this is the fault that most people fall into when developing snapshots.

Now let us suppose a case where the first of a batch of negatives has been developed, that it is found to be overexposed, and it is desired to remedy the fault in the remainder of the negatives which have probably been overexposed. The remedy is to use bromide in the developer, if you have used none before, or a larger quantity if there was a little in the previous developer. And here the rule that bromide does not alter steepness of gradation (with same time of development) comes in useful. You know from your first plate the time to develop and you have merely to give the same time with the same developer, plus the additional bromide. The bromide will practically reduce the speed of the plate and will have much more effect in this direction with developers of short factors than with high factor ones. In fact, it is of little use to try the plan with the latter class of developers. It is also useful to remember the same principle when the plan of timing by separate slip is followed, for if you use a developer without bromide and know its factor, and for some special purpose wish to use bromide, proceed as follows: Mix the developer without bromide, test this with the slip and calculate time with the usual factor. Then add the bromide and develop for the calculated time.

INTENSIFICATION AND REDUCTION.

Although these processes scarcely come within the scope of my papers, it is well to grasp the part they play in connection with development. Intensification is equal to a continuation of development, and leads to increased contrast without danger of the introduction of fog, if it has not commenced to appear. A thin, rapid plate, which in itself is not, perhaps, capable of rendering much contrast, will give a much greater contrast if it is intensified after

* Copyright, 1900, by F. Dundas Todd

development. The ordinary mercury intensifier is satisfactory, the plate being whitened in a solution of one-quarter ounce bichloride of mercury to twenty ounces of water (it takes a long time to dissolve), thoroughly washed, and after exposing to light blackened with any developer.

as if development had been stopped at an earlier stage than was actually the case. Reduction with persulphate, therefore, serves to correct mistakes of overdevelopment. It must be used with the utmost watchfulness. Both intensification and reduction should be regarded as exceptional weapons, to be



Photographed with Plastigmat.

Reduction was until quite recently a most unsatisfactory process for negatives, as the reducer attacked the lighter tones and falsified the gradation. But a more satisfactory reducer has been recently discovered in ammonium persulphate. When this is used the action is exactly equal to undoing part of the development, and the result is the same

used only when an error has been made in development.

THE EIKRONOMETER.

Although most people time development with the aid of an ordinary watch, it is by no means a convenient instrument for the special purpose, as the minute divisions are too small and it

can not well be started at zero. The eikronometer is a small clock designed for darkroom use. It has a ten-minute dial, with large figures and a calculator for multiplying appearance by the factor. It is started at 0 when developer is poured on. A half-second pendulum will be found a most convenient aid to counting seconds (for time of appearance) in the darkroom. It is easily made by fastening a bullet to a $9\frac{1}{2}$ or 10 inch chain or string. It can be suspended to the finger or the edge of a shelf. Seconds are counted at one end of its swing.

SUMMARY.

Keep to one plate.

Keep to one formula of developer — of medium multiplying factor, and without bromide by preference.

When exposing consider only rendering of detail, and leave contrast for development.

When developing consider only contrast, and leave detail to take care of itself.

For the same contrast as appears in the subject keep to a standard multiplying factor.

For more contrast than is in the subject, increase the factor; for less contrast, decrease it.

I am convinced that the worker who follows this method and these principles can secure the utmost control over results that the plate and developer is capable of.

CONCLUSION.

It is too much to hope that these chapters leave no word unsaid. I have rather aimed at building up a sound framework than at absolute completeness of detail.

The march of progress in photography tends to greater scientific accuracy in method in place of the old plan of relying upon personal experience only. "Knowledge," says Dr. Hill, in his "Introduction to Science," "is a pile of bricks; science is masonry."

In the kindred subject of exposure, I introduced eleven years ago a plan of basing the time of exposure on a test by an actinometer of the light actually

falling on the subject. Much despised and laughed at in the first place, its value is now generally acknowledged, and thousands on both sides of the Atlantic use my exposure meter. So on this present subject I take as a basis an actual test of the activity of the developer, and in the face of a good deal of derision from photographers of the old school the method has quietly gained a position. It is adopted in a number of beginners' text-books. Teachers in photographic classes find that they no longer need tell their pupils that "nothing but experience" can teach them how to develop, but are able to give definite and exact information.

ALFRED WATKINS.

THE OLD MASTERS.

(Address delivered at the National Convention, by Pirie MacDonald.

[I think that my readers will enjoy Mr. MacDonald's talk all the more if they keep in mind what I felt was his aim, namely, that the great artists of the world did not win their fame at a jump or without effort, but that it was secured as a rule by incessant struggling with the most untoward conditions that would simply have overwhelmed less tenacious men. Also that, after all, they were but men as you and I, who ate and slept, loved and hated, had their hours of triumph and their months and years of depression just as we. It was then as now — no gains without pains.— F. D. T.]

I have been often told that I could clean out a hall with very little effort, and I know there is a willingness on your part to stay, and appreciate the applause all the more because I know if I get it now it will be more than I will go after I finish. I have been asked to speak on the subject of the "Old Masters" by Mr. Core, but it seems to me as though he had picked out the wrong man.

That I should talk on a subject of this kind may seem almost impertinent, but from my earliest childhood words have always conveyed to me a sense of the solid. Words are never empty, and always created in my mind definite pictures.

Away down in Maine is a grand old house, on the outskirts of a quiet, restful village, with an old-fashioned garden, poppies and portulaca, sweet



Negative by Dr. F. Detlefsen,

QUEENIE.

Chicago.

williams and hollyhocks. A side door, with a trellis leading from it down the garden walk to the little summer house. I read a story once of a sweet old lady and I placed her in that house. Only last summer I went by and looked over the hedge, expecting to see her dear

old face smile out at me, as she would lift her head from her embroidery frame in the little vine-covered summer house. Then I remembered the story had said that she had gone home. And as I walked away and turned into the village street, a quiet sadness filled my

heart and I felt that I had lost — lost a very dear one. I had really known and loved her. And in the same way some of those old painters have been so close that I might almost have touched them. I have seen them many a time. And I will tell you simply some of the things I have seen and some of the words they have told me — some memories. So you see it is not so presumptuous — for it is what I have seen and heard.

Raphael was born — not like Michael Angelo, of parents who were without even the artistic instinct; he did not come into the world as did Benjamin Constant, from a race of gypsy peasantry, in whom no trace of taste or culture is discoverable; nor as with the great Titian, who was apprenticed to a mosaic worker by sheerest accident. Titian might as easily have been apprenticed to a tinsmith or a tailor. But this Raphael was the outcome of generations of culture and training. His father was an accomplished, and a more or less famous, artist, and the youngster was imbued with the construction sense, the graphic sense and the sense of harmony, almost before his birth. His teachers found ground that was fertile in one of those minds which seek information and invites training and instruction that it may express itself — in one of those peculiarly assembled brains that had the accumulated culture of his ancestry and the addition of the inventive faculty almost without parallel. His master found a hand that obeyed the mind almost at once in a manner and with a style that his fathers had spent years of toil to acquire.

The rapidity with which this wonderful mind bore fruit will be recognized in his picture, which is now in the Vatican, of the Coronation of the Virgin. The magnificent sweep of lines and its dramatic vivacity leave it yet, after 400 years, one of the wonders of the world. And conceived and painted by a boy of nineteen. Even at that age he was unlike his predecessors, who treated the idea only — and by symbols, they might almost be called. More figures and forms which were accepted to have cer-

tain meanings. Sets of lines which tradition *said* were beautiful.

Raphael recognized the most perfect human beauty as the means of presenting the Divine. Believing that as man had been made in God's image, that God's image was good enough to use as his model. In his famous Madonna della Granduca you find the Holy Mother no less a Virgin Saint than in the older pictures — with a soul full of divine purity and gentleness and kindness. But the soul shines out from a face that we might believe to be human, with delightful coloring and all the warmth of life; clasping the child to her bosom, loving only as a mother can love — the purest and holiest of human feelings. Full of womanly charm and divine majesty, and an air of piety that can not be passed without the feeling of profoundest reverence, and is absolutely unforgettable. In his picture of the child Jesus there is always the freshness and genuineness that is so characteristic of childhood, but with the "breath of the Godhead upon him."

Raphael's fancy seemed utterly inexhaustible, and he always clothed it in delightful forms. He is called "Raphael of the Hundred Madonnas" — and that falls much short of his actual work. Ever varying and ever beautiful, we find the Solly Madonna, the Colona Madonna, the Terra Nuova Madonna, the Madonna of the House of Orleans, the Madonna Della Granduca, the Madonna of the Meadow, the Madonna with the Goldfinch, the Madonna La Belle Jardiniere, the Madonna of the Palmtree, the Madonna with the Diadem (in the Louvre), the Madonna with the Candelabra, the Madonna of the House of Alba, the Esterhazy Madonna, and many, many others, until we come to the Madonna Della Sedia, which is in the Pitti Palace at Florence, and has probably been reproduced more times than any picture — sacred or profane — that was ever painted.

And then we find the Sistine Madonna, of the Dresden gallery, the like of which, for purity, and loveliness and majesty, the world has never known —

an embodiment of all those qualities that would go to make up the "perfect mother of the Son of God."

Raphael was called to the Vatican and assigned the task of decorating the Stanza della Segnatura — so called because the principal arts were issued therefrom — and was at that time considered the most important section of the institution. It was on those walls that he painted "The Disputa" and the "School of Athens," representing Divine and profane philosophy, and so well that to this day the room is famous as the Holy of Holies of the art of painting.

Vasari says: "How liberal Heaven sometimes shows itself — in bestowing on a single person the infinite store of its treasures and rarest gifts. Raphael was nature's gift to the world."

Simeone Buonarroti would have served as an illustration in one of those cases where from "shirtsleeves to shirtsleeves is four generations." But he had prolonged the agony by being too lazy to put on the work apron and wooden shoes and be honest. He was one of those degenerate tailenders who was born with a silver spoon in his mouth. The spoon was very much worn and pretty thin by the time it reached *him*. He used the spoon as much as he could — without inconvenience to himself — and when it got to his children there was nothing left but a bit of the handle. He had figured it all out, however. What was left of the spoon would serve to scratch the back of some one who could land his son in an office under the state, or post in the army. Simeone did not care much which it was, so long as he did not have to work and there was a little "rake-off." In either case the job would be easy — only a matter of an occasional bit of dirty work for one's patron — you know it would never do for a *Buonarroti* to really work.

But Michael did not care a whoop about offices under the state, nor posts in the army. When his grand dukelets went by all dressed up in high-priced clothes and a sword, Michael did not take off his hat and pull his forelock as



Neg. by W. M. Myler,

Wilkinsburg, Pa.

his father did. Not he. He would hide behind his mother and make faces at them. Michael was never what would be known as a pretty boy, and the making of faces did not enhance his beauty. When the grand folks were gone his father would hit him a clip and warn him never to let the wind change when his face was mixed up that way, for it might get stuck and never get straight again. Then again, Michael was busy. Out in the back street there was a gutter that had the loveliest lot of mud, of all degrees of consistency, from hard chunks almost like flint down to the softest, sunshiniest variety imaginable. Michael from this used to make all

kinds of curious things — things that he had seen, things that he had not seen, and things that just grew that way. This to the disgust and horror of his good mother, and the utter indifference of his father.

All this happened at a time when they were doing a lot of building and fixing up and decorating of churches throughout Italy, and work of that kind had a fascination for Michael. The size of the rooms, the beautiful colors, and I guess the very air of sanctity that pervades Roman churches had an effect on him. A quiet, moody little brat he was. Never in the way; he took good care of that, for he would have been sent home with a cuff. Well! They had other children at home, and when he was away he was not bothering them anyway. And he was too little to hurt anybody else very much. So he got into the habit of hanging around the door of a cottage of a chap named Ghirlandajo, just as youngsters in our time hang around the flap of a circus tent! And he was tickled almost to death when they let him go after a pail of water, for he could carry it inside, and once inside he did not break his arm trying to get outside again. Then they would let him hold a brush once in a while, or wash out a paint can. After a while he went as regularly as the students and workmen, and I fancy that he did not go home for lunch — if they would give him a bit of their bread and onions. Even though they did not give him anything to eat, he could not spare the time to go home, he might miss something. And anyway he was positively necessary to the institution, he thought, and in fact he grew to be a part of it.

One time, after he had been particularly docile for a number of days (he was a headstrong, impetuous little colt), the master set him down beside the students with a bit of paper and charcoal. He was awkward at first and balky and did not like people to watch him. But, good Lord, how that youngster did learn to draw! And how the rest of the boys did hate to have his stuff pointed out as the best example of

the day! They were pay pupils, he was only —. Well, I guess they thought he was just a good deal what we think a "yellow dawg" is. Anyway, Ghirlandajo, who, by the way, was shrewd just a little, went around one night and had a talk with Simeone (the father). And of course there was "nothing doing." Simeone was the sediment, the bad taste in the mouth, after a line of cheap gentry, and it was an insult with a big "I" to suggest that his boy learn a trade. He would not mind your buying him four or five drinks hand-running, and never think of ordering one on himself. Or he would accept the loan of anything from a peseta to a ducat without any thought of paying it back. But *work!* Why, painters were just painters, whether they did whitewashing or frescoes. Well, he guessed not, and was surprised and grieved at being asked. But the master wanted the boy (he wanted to inaugurate him into a shining example), and the father was appeased and let the insult go by unavenged.

(To be continued.)

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Negative by George M. Crowe,

DOWN IN THE MEADOW.

Los Angeles, Cal.

THE PHOTO-BEACON.

EDITED BY F. DUNDAS'TODD.

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No. 12.

PAST AND FUTURE.

With this number ends the thirteenth volume of THE PHOTO-BEACON and the eighth year in which it has been my fate to occupy the editor's chair. Many people look upon thirteen as being a very unlucky number, but I can not say that it has been so in my experience as the editor of a photographic journal, because in every way I consider that this has been by far the most successful year of this publication. To begin with, the subscription list is the biggest that ever was, and in the second place, my readers have been kind enough to say, and that not infrequently, that the matter and pictures surpass anything that they have had in the past. As for myself, I know that I have had more real pleasure both as an editor and as a man during the present year than in any one of my life. I have tried hard to get all the fun that was coming to me, both in my work and in my play, and I am convinced that I have missed but little of what was intended to come my way. In recent years I have realized that in this world we get pretty much what we look for. If we are seeking for trouble we get it all the time, in fact, it comes along without searching for it, and so he is foolish who tries to add to his share. If we look for what is ugly we can find it every moment of the day, and if we look for what is beautiful it is to be found on every hand. Realizing this, I try to laugh at my troubles and certainly seek for none. I pass by what is ugly

without a second thought, and love to linger over what is beautiful and interesting to me. Thus every day makes me enjoy life more and more.

Thinking over my program for next year, I felt it would be wise to continue very much as I have done in the past, to keep on teaching sound technical principles of photography, and all about the pictorial side of the art. In the past I have been exceedingly fortunate in the contributors to the journal, and I am convinced that my arrangements for the future are just as good. At the Detroit convention I was very much impressed with the clear and lucid manner with which Mr. Hitchcock enunciated the principles of composition as understood by the Japanese. It is now admitted that this unique nation has solved the abstract principles of pictorial composition better than any other race, and being desirous that the readers of this journal should receive instruction from a man thoroughly familiar with oriental ideas, I at once arranged with Mr. Hitchcock to write a series of twelve articles on "Pictorial Photography" for THE PHOTO-BEACON in 1902. I am convinced that I have made a particularly happy selection both of subject and of author, and what Mr. Hitchcock has to teach will be of inestimable value to all those who are interested in the pictorial side of photography. To illustrate his articles, he will be able to draw on pictures made by some of the finest professional and amateur workers of the day,

and will point out very fully their good and bad points.

The subject of isochromatic photography assumes greater interest every year to the pictorial photographer, as it is almost impossible, particularly in landscape subjects, to secure the correct rendering of color values by the use of ordinary plates. One of my friends, Mr. R. James Wallace, who, three years ago, wrote a very popular series of articles for THE PHOTO-BEACON on "Artistic Posing and Lighting," has been interested in this subject in a scientific way for over a dozen years. The average writer on isochromatic work talks vague generalities, but Mr. Wallace has attacked the problem from a purely scientific standpoint, and in all his work has used the spectroscope both visually and photographically. He has, I believe, the finest equipment for this study in the United States; besides, his library of almost one thousand volumes is, I fancy, the most complete on the subject in existence. He has experimented with something like three hundred different dyes, has made at least five hundred different ray filters, and made over three thousand spectroscopic negatives. My readers will, I think, be glad to learn that I have been able to arrange with Mr. Wallace to write a series of articles on this fascinating subject, in which he will tell, very plainly, what has taken him over a dozen years to learn. He will explain his methods of testing plates and illustrate by means of spectrum photographs the color qualities of every plate on the American market, explain the various kinds of subjects the photographer will meet with in the course of his work, and tell what kind of dyes must be used in certain conditions, and how to make suitable ray filters for every subject and for every plate in the market. Such a series of articles is unique in the history of photography, and I can assure my readers I am proud that I have been able to secure them for THE PHOTO-BEACON.

Our genial friend, Mr. James F. Ryder, will continue the story of his reminiscences that have proved so far

exceedingly interesting as a picture of by-gone days, and a very large number of readers have written to say that they have derived great pleasure from their perusal.

During the year I have been not unmindful of those who like short, practical articles, such as appeared in the journal until the present year, and so I have been steadily collecting all that was good that presented itself in this field, with the result that I have in hand over fifty articles on a large variety of subjects which will be of practical interest to every photographer.

The outlook for pictures is very bright indeed. The quality that reaches my desk improves with every month, and I have every confidence that what will appear in 1902 will be as far in advance of the present year as this year's illustrations have surpassed those that have gone before.

I need hardly remind my readers that THE PHOTO-BEACON is run as a business proposition, and that no journal leaves the office excepting to those who have paid for it. Thousands of subscriptions expire in the month of December, and those who wish to secure the January number must see that they renew before the end of the month. I know that a very large number of people are a little careless on this subject, but if they realize how much clerical work they give to the publisher, they would be prompt in their remittances. A renewal takes but a couple of minutes of a clerk's time, whereas, dropping a subscription and reëntering it is responsible for at least ten minutes, and when hundreds are coming in every day my readers can see for themselves how much we appreciate the careful reader who is prompt in his remittance.

To one and all of my readers I wish as pleasant and happy a year in 1902 as they have given me during 1901, and trust that those who are younger than I will learn sooner than I did that he is wisest who gets a little pleasure out of every day, and I know no better way of securing that than by means of photography.

F. DUNDAS TODD.

PICTORIAL COMPETITION No. 42.

This proved to be a very popular competition, and a great variety of interesting and careful work was sent in. The judges expressed themselves as being greatly pleased with the average run of work and, after considerable discussion among themselves, made the following awards:

First prize — Edward Bourke, 5648 Michigan avenue, Chicago.

effect. However, coming down one morning toward the end of last October, I found the effect I had been long looking for was at last before me, and so I hastened into my office in the building and brought out my camera, which I had kept there for a long time awaiting the fitting moment. I also brought along with me the two men who are seen walking out of the picture. The exposure was made on a $3\frac{1}{4}$ by $4\frac{1}{4}$ backed



Negative by C. S. Jackson,

Detroit, Mich.

AT WILMINGTON, A FEW YARDS FROM ALTON DEPOT.

Second prize — R. W. Seaman, 208 New Ridge building, Kansas City, Missouri.

Third prize — A. J. Swanson, Fairbault, Minnesota.

PARTICULARS OF WINNING PICTURES.

First Prize.—Mr. Bourke says: "I had long seen the possible chance for a picture at this corner, but had to wait a very long time until there occurred what I considered the proper atmospheric

instantaneous iso. plate, with stop f-5.6 in $1\text{--}50$ of a second, but $1\text{--}15$ would have been far better. I was rather excited and not figuring properly; the result was a very much underexposed plate. Of course, it had to be forced in development and afterward intensified with mercury, the result being a very poor technical negative that gave a very incorrect rendering of the shadows when printed, so I made a lantern slide from it and by much overexposure and under-

development I got a nearer approach to what I wanted, but far too dense in the shadows. I, therefore, reduced it with ammonium persulphate to clean out the shadows, and I now found it resembled the scene as I saw it, but was still too dense all over for the best effect on the screen. So Farmer's reducer was applied to it to secure what I wanted. I then placed the slide in the enlarging lantern with the glass side next the negative to soften the effect, and made an enlarged negative. This, after drying, was flowed on the back with a ground glass varnish which was worked over with black lead and by means of a stump, the idea being to hold back the figures in the center and the side of the building in the foreground; then two masks were made, the first to block out the darkest part of the building and sidewalk, the second to subdue still more that part of the buildings above the heads of the men, cabs and horses. Once everything was ready, the final print was made on Willis & Clements rough (CC) platinum paper.

This picture was reproduced in October issue.

Second prize picture.—Made on Cramer Inst. Iso. plate in 1-50 second, print on platinotype.

Third prize picture.—No particulars given.

FUTURE COMPETITIONS.

Competition No. 45 — Pictures of children under seven years of age, not necessarily portraits. Closes January 31.

Competition No. 46 — Lantern slides, any subject. Closes February 28.

Competition No. 47 — Snow pictures. Closes March 31.

Competition No. 48 — General competition, any subject. Closes April 30.

Competition No. 49 — Branch of a tree without leaves, with special consideration of decorative effect. Closes May 31.

Competition No. 50 — Domestic animals. Closes June 30.

Competition No. 51 — Genre pictures, or pictures that tell a story. Closes July 31.

Competition No. 52 — Branch of a tree with leaves, with special considera-

tion of decorative effect. Closes August 31.

Competition No. 53 — "At Home" portraiture, that is, portraits not made in a studio. Closes September 30.

Competition No. 54 — Snap-shot pictures. Closes October 31.

Competition No. 55 — Landscapes. Closes November 30.

Competition No. 56 — Flower pictures. Closes December 31.

PACKING EXPOSED PLATES ON TOUR.

All things considered, we should agree with those who say that the best way of packing exposed plates for traveling is to place them all together, each two being film to film, and then strap the six or twelve together in one solid block with a lantern binder or gummed strips, and finally wrap them in several thicknesses of non-actinic or opaque paper, and consign them to their original box. A recent experience teaches us that certain precautions, however, are necessary to prevent even this method leading to disaster, for if a particle of hard dust or grit remains between the films, jar and vibration, even though the plates appear firmly bound together, will result in a curious circular scratching of both films. When, therefore, packing up exposed plates in the manner referred to, a silk handkerchief or anything similar should be passed over each film twice or thrice, to remove every particle clinging to the surface. In our own experience, and in that of others, a gummed label attached to the back of each plate, for the purposes of subsequent identification, may well give trouble, the outside plates of the packet showing, when developed, a small, less-exposed patch exactly corresponding to the label. This we attribute to light having in a very small degree penetrated the covering, and produced slight general fog, except where the label has been a protection — a fog so slight that it would not have harmed the negative had not the label caused a less fogged or less exposed spot. If a label be used at all it should be placed so near the edge that it hardly encroaches at all on the picture.

**PHOTOGRAPHIC PRINTING
PROCESSES.***

BY LOUIS H. HOYT.

CHAPTER XII.**PLATINOTYPE.**

Of all the printing methods that are within reach of the amateur, there is none, in my opinion, which can begin to compare with platinotype. Carefully

It must be understood that I offer this advice only to those who have progressed far enough in photography to produce a negative of good printing quality. The best negative is one that is fully timed and developed to good density. The shadows must be free from fog. Thin negatives, whether from over or under exposure or insufficient development, or negatives which



Negative by William Francis,

FLORA.

Darby, Pa.

made, a print by this process is a joy forever. The printing and finishing is simplicity itself, and of its permanency there is absolutely no question. If you have never made a print on this paper, because you have heard that its manipulation is uncertain, my advice is to get a package as soon as you can and commence now. It is as simple as making a blue print; in fact, it is a near relation of that old-time friend.

are foggy, will not make a print on this class of paper.

The amateur of only one season's experience, unless having the benefit of instruction from a practical worker, had better not attempt platinum printing, as the probabilities are his efforts will be failures, due to poor negatives.

The papers on the market at present are of two kinds — that known as the cold-bath platinotype, and the other known by pretty much any old name,

* Copyright, 1901, by F. Dundas Todd.

such as water development, water-tone or something of the sort. I will say a few words about this last-named class of paper before proceeding with the platinum paper. These water-developed papers are platinum, all right, and if luck is with you and you get a good print, the product is as permanent as with the better grade of paper. It is possible, too, to make very fine effects. The paper works somewhat more contrasty than the development process. The developer is incorporated with the sensitizing salts and on this account the least trace of dampness will create a reaction during the printing, which makes that operation rather uncertain, varying according to the amount of moisture present.

If the paper is properly packed in a sealed can and has been kept in a cool, dry place until wanted for use, the color of the sensitive side will be a lemon-yellow. If taken from the can on a warm, dry day and printed behind a negative which is perfectly dry, the image will appear quite rapidly and will vary in color from a deep brownish yellow in the shadows to a rather slaty color in the half-tone. Under these conditions the printing should be carried to a point where the detail in the high lights becomes visible. As soon as printed, the paper should be plunged into water of about 120° temperature and allowed to remain until the whites are quite clear. This generally requires about thirty seconds' time. When developed, the print is placed directly into a clearing bath of muriatic acid and water (1 ounce of acid to 60 ounces of water) until the yellow color has entirely disappeared. The prints are then washed in plain water for five or ten minutes to remove the acid, and then dried or mounted.

This is the process of printing and finishing as generally given in the directions which come with the package, and is correct if the paper has been kept perfectly dry, but when the atmosphere is damp the results are not as described. The image, instead of printing the proper color, will print out, that is, will appear fully and be of a black color. I

have opened fresh cans of this paper, in ordinary weather, handling it as carefully as possible, and found that almost every sheet in the package printed differently. The first one or two would print nicely, but the last few sheets, having been exposed to the atmosphere for an hour or more, had attracted so much moisture that they printed out fully. It is this sensitiveness to moisture which makes the paper uncertain and impracticable.

The most certain manner which I have found to produce a print is to steam the paper slightly before putting it in the frame. It will then print out and the depth of printing can be judged accurately. The tone of the finished print will not be black, but of a brown-black color. It is very pleasing at that and if pure blacks are not the object, the prints are fairly satisfactory. When paper is steamed in this manner, it is usually not necessary to develop it at all. Place it directly into the acid cleaning bath as it came from the negative, and when the whites are clear, wash as above described.

I would not advise any one to use this kind of paper. It is manufactured for sale to the amateurs, and I am bound to say that it is my candid opinion that all manufacturers do not take as much care in the making as they know to be necessary. Another word of advice I would give the amateur is, to use the papers which professional workers use. There are several varieties of different papers on the market which are advertised as being unusually simple of manipulation. It will not pay you to fool with them. Learn to print a practical paper at the beginning.

Platinum paper is so easily affected by moisture that it is packed in sealed tin tubes, from which all moisture has been expelled by means of heat. Each can contains a package (in some form) of calcium chloride, which is usually called the preservative. Calcium chloride attracts any moisture very readily and is placed in the can for that purpose. If at any time you should use a part of the paper in the can, heat the preservative to expel all dampness and drop it into the

can quite warm (not hot) before re-sealing it.

Platinum paper is also affected by heat and should be stored in a cool place. The upper part of a refrigerator is a good place. It should not come in contact with the ice or water. During very hot weather I do not believe I would buy from a dealer who kept the cans on a shelf. He should have an ice-box.

It is generally advisable to print platinum in a good light, either under

tive, the latter should be thoroughly warmed and dried. The printing-frame, especially the folding back, should be warmed also, to be sure there is no moisture in the cloth covering. If this is carefully done there is no need of using rubber or celluloid pads. Paper manufacturers advise the use of these pads in all cases, but not one printer in a thousand ever bothers with them, although they are a very good thing to use as a precaution. If you have not time to dry your frames, however, the



Negative by A. J. Swanson,

THIRD PRIZE.

Faribault, Minn.

ground glass or with the frame covered with tissue paper, but this is not absolutely necessary, as just as good results are obtained in direct sunlight if the negative is fairly dense. With thin negatives the printing must be done in a weaker light. Bear in mind that platinum prints very rapidly and if handling several negatives, in direct sunlight, watch them carefully or you are going to lose paper from overprinting.

Before placing the paper on the nega-

use of a pad is absolutely necessary if you desire a brilliant print.

Both the negative and the paper should be carefully dusted before the frame is filled, as, aside from the white spots left on the print by particles of matter being between it and the negative, these same particles may be the cause of comets in the finished print. A negative for platinum printing should be varnished to cover all traces of hypo or other salts which might remain in the

film. Rub the negative thoroughly with a wad of pure cotton before placing the paper against it.

A negative which has been strengthened with mercury is worthless for platinum printing unless it is varnished clear to the edges.

Platinum paper is rather expensive compared with silver paper, and the worker will not care to waste much of it, so it will be necessary to use every precaution possible. The few points just given will prevent most failures, if followed.

The sensitive surface of the paper is of a lemon-yellow color, and this side, of course, is placed next to the negative. The image will appear quickly when the frame is set in the light, and will be fully printed in probably one-third the time required for a silver print.

Each can of paper contains a direction sheet with a picture in yellow and black showing how the print should appear fully exposed. Let it be your guide for the first print, and after that first one is made the rest are easy if you watch the results carefully. If the print, when developed, is too dark, do not print so far the next time; if too light, print deeper. It will be useless for me to describe the appearance of the print, as the directions do it plainly by means of the colored picture, and the first print you make will tell you the whole story. When it is necessary to print from a thin negative, however, it will be found that the image should not appear too fully. In some cases just allow it to appear before stopping it. It will develop out all right. Prints from thin negatives will generally be gray in tone, unless overprinted, and then the detail will be lost.

Prints should be developed as soon after printed as possible. This is especially necessary on a damp day. On a dry, warm day it is not so necessary.

ERRATA.

In the tenth article two errors occurred in the formula on page 318. Metabisulphate ought to be metabisulphite. In solution No. 2 the formula should call for:

Water 20 ounces

BEGINNERS' TROUBLES.

CHAPTER XI.

A SIMPLE ENLARGING CAMERA.

Using a darkroom for an enlarging camera is all right if you have a darkroom that can be provided with an outside light, but every beginner does not have such a room. There is probably a much larger number of amateurs who do their developing in a closet or some room temporarily darkened for the purpose, than there is of those who have a darkroom that could be utilized for enlarging. It follows, therefore, that if the majority of amateurs would do enlarging they must have either an enlarging lantern or an enlarging camera. The former is rather expensive, but an enlarging camera can be bought for \$10 or \$15. Failing the \$10 or \$15 to invest in that way, one that is just as good, though perhaps not quite as convenient, may be made for almost nothing.

The first thing to do is to find the size necessary with the lens you use. If you know the focus of your lens you can consult a table giving the necessary distances of negative and paper from the lens with the different times of enlargement. Such tables are to be found in any book dealing with the subject of enlarging. If you do not know the focus of your lens, or do not have such a table to refer to, the following method may be pursued to secure the desired information: Cut a sheet of plain white paper of the size that you intend to make the enlarged picture and mark a cross in the center of it with a lead pencil. Fasten it to the wall with tacks and set up your camera at the proper distance to take a photograph of it. You can focus on the black cross in the middle of the paper. The image of the paper on the ground-glass should be just the size of the negative from which you are going to enlarge. Take plenty of time to this, for it is important. When the image is of the right size and in focus, the distance from the ground-glass to lens and from paper to lens must be measured and recorded. Let us suppose a case.

Your negatives are 4 by 5 and you

want to make 8 by 10 prints from them. The plain paper is cut 8 by 10 inches, and the camera is adjusted till its image occupies 4 by 5 inches of the ground-glass when in focus. The distance from front-board of camera to the paper is found to be $22\frac{1}{2}$ inches; from the front-board to the ground-glass, $7\frac{1}{2}$ inches. Now we are ready for business.

The first thing needed is a light-tight box not less than 8 by 10 inches deep and wide, and at least two feet long. If these dimensions were exceeded a little bit it would be better. A large cracker or macaroni box will answer the purpose admirably. If it is not quite light-proof it can be made so by lining it with black paper. Remove one end of this box and in the center of it cut a hole large enough to receive the lens. If the front-board of your camera is removable this hole need not fit the lens snugly, as the front-board will cover up any light that would otherwise get through. Next make a box 9 inches long and $4\frac{1}{8}$ by $5\frac{1}{8}$ inches, inside measurement. This box is to receive the negative, and one end must be left open for that purpose, while over the other is nailed the board taken from the large box. Now provide a lid for the large box, with an opening in the center in which the small one will slide back and forth. This may be made of one board, with the center cut out, or it may be made of four boards nailed together so as to leave an opening of the right size. Next nail cleats on the inside of the large box (two on opposite sides of the box are sufficient), with the upper edge just $22\frac{1}{2}$ inches from the bottom. These cleats should not be securely nailed, as you may want to move them in making enlargements of a different size. Two shingle nails will be enough to hold each, and they need not be driven to the head, as the weight they will have to support will be insignificant. Now drive a small nail through each of the four sides of the small box so that one-fourth of an inch will project on the inside of the box just $7\frac{1}{2}$ inches from the *outside* of the hole cut for the lens. These nails are for the negative to rest on, and they complete



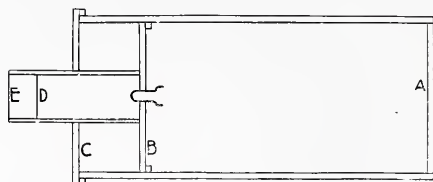
Negative by R. W. Seaman, Kansas City, Mo.

SECOND PRIZE.

the camera. If any of the details have not been clearly understood the drawing will make them plain.

A is the end which was left in the box. To this the sensitive paper is attached by pushing a tack through each corner and into the wood. B is the end which was removed from the box and nailed to the small one. This carries the lens (on its own front-board if pos-

sible). C is the cover for the large box having an opening in which the small one slides. It will be quite impossible to make this place light-tight and entirely useless to try, as any light that does come in around the small box will be intercepted by the large board that carries the lens. D is the negative, and E is a ground-glass or sheet of tissue-



paper with which the outer end of the small box is covered in making an exposure.

To use this camera it must be taken into the darkroom where the small box and the lid of the large one are removed. Then the bromide paper is fastened in position and the small box and lid replaced. Next the negative and ground-glass are adjusted, the outer end of the small box is covered with a piece of cardboard, or anything convenient, and the camera is carried out into the light. In the early forenoon and late in the afternoon the camera may be set on end and the exposure made while it points toward the zenith. Near the middle of the day, however, a more even illumination of the negative will be secured by inclining it toward the northern sky. After the exposure the camera is again carried to the darkroom, where the paper is removed and replaced with a fresh sheet, or developed, as the case may be.

J. EDGAR ROSS.

A NEW INTENSIFIER.

Messrs. Blake-Smith & Garle, of London, England, have recently devised a method of intensification with mercury which possesses certain novel features, and is one that is distinctly advantageous to the user, because it can be repeated, as is the case when ferrous-oxalate is used as the blackener. The following is the formula:

A.	
Saturated solution of mercuric chloride	1 ounce
Hydrochloric acid.....	5 drops
Water to.....	2 ounces
B.	
Formaline	20 minims
Caustic soda.....	6 grains
Water to.....	2 ounces

The negative to be intensified is bleached in A, washed as usual, and immersed in B. It is well to leave it in this solution for about five minutes, after which it may be washed. If the intensification is insufficient, it may then once more be bleached, washed and darkened, and so on as required. One worker says he repeated the operation as many as six times with perfect success.

BUCKLED SEPTUM OF PLATEHOLDER.

On reading an article on backing plates in one of your recent numbers, to which you subjoined a few remarks showing that the septum of a plateholder is usually more or less damaged by inserting a plate not fully dry, etc., led me to contrive a remedy for damaged holders.

One of mine met with this fate, and was so badly buckled that I cast it aside as being unfit for practical use.

For the benefit of those who have had similar experiences, and knowing a few suggestions will be appreciated as to how such holders can be restored to their original condition, I shall describe the method I used to level the septum of mine.

First, I removed the slides and brass springs.

Second, I slightly moistened the septum of both sides; placed in contact several sheets of blotting-paper and on top a block of wood; then turning over the frame let it rest on a solid base. I then proceeded with the other side in the same manner, after which I placed a heavy weight on the top block so that the pressure is confined to the septum only.

Allowing ample time to dry out will make a holder damaged in this way as good as new.

B. HURXTAL.

VOIGTLANDER AND I.*

BEING THE REMINISCENCES OF JAMES F. RYDER.

CHAPTER XII.

BEDFORD.

Tinker's Creek is wild and savage enough to seem out of place in a peaceful little village only a dozen miles from Cleveland. It runs through a gorge of rock a hundred feet deep, the walls of which are nearly perpendicular,

the monotony of running water. Upon the top of the west bank sat Bedford town, with its two hotels, its public square, its complement of stores and shops, its snug homes and its friendly people. It was a trading center for a farming district of half a dozen miles around.

Through Bedford was now under construction the Cleveland & Pittsburg Railroad, which gave the town an un-



CHAGRIN FALLS.

the bed of the stream filled with heavy broken stones, washed for scores of years, and in winter covered with masses of ice which look cruelly cold. From the seams in the rocky banks there thrust out bushes and small trees of rugged growth.

In the glen were nooks never reached by the sun, where in hot days visitors could sit in the grateful shade and hear

usual activity. Spanning the chasm of Tinker's Creek was being built a trestle bridge or scaffolding upon which to carry the stringer for the truss. This manner of work was a novelty to the people of the village, as it rose from the broken rocks in the bed of the creek, a succession of timbers end upon end to grade level, where the rails would be laid.

A goodly number of people were in

daily attendance until the stringers were stretched from shore to shore. When a venturesome lot of people possessed of a whim to be the first to cross started upon the foolhardy feat—a number of women as well as men joined in the venture—the craze struck me too, and I started. As I approached the center, the point highest from the rocky bottom, where to look down was suggestive of a fall to sure death, I found it a poor bravery. If I could have turned back I would gladly have done so, but the fool procession was behind as well as in front, and there was no help for it, I had to move with the crowd. I would have been thankful for a hand-rail, the inclination to get down and creep along upon the timbers with the advantage of being able to grasp them with my hands was upon me, but no one else did, not even the ladies. There was not a little squeal or scream from them. There were no attempts at conversation, no comments or banterings; they were attending closely to the business in hand. A false step, a loss of balance, would have been quite out of order just then. At last we reached the opposite bank and thankfully stood upon solid ground. I noticed the crowd was willing to walk a good half mile around rather than to cross the chasm upon a single timber. I got so many dollars from the contractor for daguerreotypes of the structure I was enabled to “speak well of a bridge which had carried me safely over.” A few years later a broader bridge of stone, with deep arches and double tracks, replaced the wooden one.

In this autumn of my stop at Bedford was held a camp meeting within two miles of the village. Never having attended a meeting of this kind I determined on the following Sunday to do so. One of the acquaintances I had made in Bedford joined me for companionship, and together we went. On entering the woods which led to the camp we found deep cut wagon tracks winding along, dodging the trees where wagons had not been before, but where they were on this day in abundance. There were farm wagons and carriages from a distance of miles around, from

surrounding villages, and even from Cleveland. Horses hitched to trees, horses unhitched from wagons and feeding from them. There were tents and hastily built shanties; there were temporary tables of boards upon which to spread food from baskets—there were even cooking-stoves and pots boiling, suspended from poles fastened to the trunks of trees. There were families of husbands, wives and children, and there were neighbors and neighborly people. There were young fellows and girls come for a lark, as though it were a township picnic. There were preachers of great power—“A wonderful outpouring,” it was said, had resulted from the preaching through the week and this day, Sunday, was expected a great manifestation of spirit. For preaching stand a large platform had been built, and hastily constructed seats prepared. Outside this auditorium, among the wagons, the tents and sheds, among the young and thoughtless it seemed more a gala day than a place of divine worship.

There had been a heavy shower in the early morning. As the time for opening services was drawing near it was discovered that the front rows of seats—those known as “anxious seats,” being nearest the preaching platform, were on low ground and water was standing there.

The Rev. Shouter, in charge of the meetings, was a stirring man, a gifted preacher and a good organizer, was quick to see the objection to the water in that particular spot and quietly ordered some straw to cover it. Some was brought such as could be spared from tents and wagons, but it was quite insufficient. Then, like one born to command, he stepped upon the platform and called out, “here you brothers; wherefore stand ye idle? The ground is wet in front of the pulpit. We want straw, we want more straw—souls may be lost for the want of straw! Go to brother Skinner’s barn and get straw; this wet must be sopped up.”

As the time approached for speaking to commence, the seats began to be filled, and it was noticeable that the

audience was made up of earnest faces, nor did the ladies of the congregation affect elaborate or gorgeous toilets. Going to meeting in the woods did not

above, all contributed to serious, sincere solemnity. The feeling of getting nearer to God than under roofed churches fills the mind and satisfies the



SCULPTURED ROCK, CHAGRIN FALLS, OHIO.

require silk gowns. These women had come to hear expounded the word of God in the hope of divine grace being given them. The solemnity of the

listener. The word comes unobstructed by groined arches or architectural fashionings.

Nature gives approval and benedic-



BEDFORD GLENS, BEDFORD, OHIO.

woods, "the gathering in the wilderness," as it were, the whisperings of the great spirit through the stilled breath of the air, the boundless dome of heaven

tion to God's children who gather together in His name to seek His blessings. This was noticeable in the faces of the congregation here assembled.

The Rev. Shouter arose from the rude bench provided for himself and his assistants, stepped to the front of the platform and gave out the hymn,

"Come, ye sinners, poor and needy,
Weak and wounded, sick and sore,"

with the request that all voices be heard. The singing was taken up with a heartiness and vigor that made the woods resound. Prayer followed, and then came the preaching.

I can not recall the text of the good man, but his sermon was earnest and powerful, his appeals in behalf of sinners, and especially those for whom he was pleading, were searching and magnetic. Many were visibly affected. When the sermon was closed he announced that after the next singing a season of prayer would follow—a request was made that the mourners of the day before who had not received the full blessing should take seats on the front row. I could but notice there seemed much of a business air attending the preparation. Those especially gifted and powerful in prayer were arranged upon the platform, and were called upon by Rev. Shouter to lead and to follow, according to their force and ability as pleaders for anxious souls. I noticed among the mourners a colored woman who seemed strangely affected. The man who accompanied me from our hotel and who sat beside me, said, "Keep your eye upon her, she is a subject for 'the power.'" My inexperience inclined me to ask what he meant by "the power." He replied that it was a condition of extreme excitement—a religious frenzy to which colored people were more sensitive than whites, and they "give way" to it more readily. Continuing, he said, "I'm from Virginia, and have seen on the plantations much of their 'rejoice' and hallelujah voices, which are really in a way impressive. They shout and jump, sometimes fall down and go into a trance condition, in which they remain for a longer or shorter period—they call it 'coming through,' a process of being converted from sin to righteousness. They fall down in sin and awaken puri-

fied, usually singing, crying and rejoicing."

I was keeping an eye upon the colored woman, who seemed under extreme excitement. She threw her arms up, she shouted and cried, begging for God's mercy. Suddenly backward she went over one of the seats, kicking and floundering. A rush was made for her by those nearest. After a little she quieted down—had evidently gone into the trance my informant told me about. Her fall, however, broke up the meeting. There was no going farther with that session. I thought the general merriment seemed sacrilegious, and in my mind resented it. I heard one woman ask another what the people were laughing about. The reply was, through suppressed laughter, "Well, the situation was laughable and ridiculous—that colored woman was not properly clad for such a mishap. Poor thing, I was very sorry for her; but it was so funny." And she laughed again in spite of herself.

That portion of the dismissed congregation that returned to Bedford village did not maintain continuously the serious Sabbath seeming usually observed in returning from morning services. Surely from the sublime to the ridiculous is but a step.

My room in Gray's Hotel was in the back part, overlooking the kitchen yard, where the crowing and cackle of chickens and the odor of frying ham were accompaniments to the rattle of dishes.

The morning after the camp meeting episode I heard from the kitchen a contralto voice, soft and deep, half humming, half singing, hymns which I recalled from the woods. With increasing earnestness, with a thrill of rhythm and refrain, as the voice poured out in unrestrained abandon the "Waker," "Come ye sinners poor and needy," I gave way to my curiosity—went into the breakfast room, took a look into the kitchen, and there was the woman of yesterday, sure enough. She was our new cook, wonderfully skilled in fried chicken and corn dodgers. She was a sincere Christian woman, earnest and faithful in her devotion to God.

THE OLD MASTERS.

Address delivered at the National Convention, by Pirie MacDonald.

(Continued from page 352.)

The terms were that, instead of the father paying the master, the master paid the father. And Michael was bound out for three years. After a while the boy struck his gait and forged ahead so that he was the master's third hand. And they worked together with-

the same token. And Michael was without salary, for he was an apprentice.

That man Ghirlandajo is, to my mind, one of the bright spots in the history of painting. He had the sense of honor and he had a heart. He had the capacity and breadth which allowed him to put his own interests in the background for what he considered just and right. He is to me the type of generosity.



TINKER'S CREEK, BEDFORD, OHIO.

out regard to pupils and classes and bonds of indenture. In those days the advanced pupils, or apprentices, performed the major part of the actual painting, the master merely furnishing the design and the color scheme. Michael got beyond the stage of carrying out designs. He worked with the master, creating and designing, and made it possible for Ghirlandajo to do double the work, and to double the profit, by

After Buonarroti had been with him a year, he realized that the boy had genius, beyond his power to handle and beyond his means to cultivate to its fullness. Instead of working a good thing to its limit; instead of grinding out every penny; instead of letting him work out his term, he took him to Florence, to the academy that was fostered and supported by Lorenzo di Medicis, "Lorenzo the Magnificent," and prayed

that he be admitted and given the advantages of the school that was at the pinnacle of the art of the time. Michael Buonarroti was one of those unfortunates who seem to be marked by some fate for opposition. He never wanted to do anything but that some formidable obstruction was interposed, and had to be beaten down, or circumvented. It was struggle all through his life — eternal and everlasting struggle. And it had the effect of embittering him. It made him in his after life a determined, morose and most unpleasant character, eventually practically separating him from the rest of mankind and its pleasures. But it did, however, much toward creating the firmness and concentration and oneness of thought that made him the mighty man. It forced him to get his pleasure in study and meditation, in labor and in conquering.

After he had been at the academy a while and had demonstrated that he was the right man in the right place, his father came up to Florence to see him, and came upon him in one of the workshops, wearing a blouse and apron, hacking away at a piece of marble. So! This was the game! They had gotten his poor boy away from him, to make a stonecutter out of him. And a Buonarroti work like that! (and so cheap, too). It was a conspiracy to rob him! He would go to the courts! Unless — he got an office under the government (and a sinecure at that). Well, he got the office, for Lorenzo wanted Michael.

Michael continued growing, and was taken into the household of the prince. And the jealousy began to chase him, until one day, incensed at a favor that had been shown him, a fellow student, Forregiano, smashed him in the face with a mallet, broke his nose and wiped out every suggestion of good looks the fellow ever had — except his blue eyes, and they were to shine with hope yet for a while. It was about this time that he made the Cupid — the Cupid that got lost — the piece that was enough to make a life-long reputation for any man, and then Lorenzo died. Then came the son of Lorenzo — Piero di Medici — who continued the academy,

not because he wanted to be a benefactor, but so that people would think that he was one.

Snow does not often fall at Florence, but one day it did, and Piero celebrated the event — with some friends — and just to show a stunt, he commanded Buonarroti to make for him a snowman. He did — a satyr — surmounted by the monkey face of Piero di Medici. The guests laughed, and threw him a shower of silver. But he turned on his heel and stalked away, and the silver lay in the snow for the next man to pick up. The bitterness was commencing to take hold.

Piero di Medici was heartless and extravagant. He ground the people down, as did Louis XIV., and they turned on him as the French did on Louis XVI. Only they were more merciful: they just kicked him out. Of course Michael, as part of the household, got his walking papers, too, and was pretty lucky to be merely exiled.

Well, he went to Bologna to look for a job. He went to a sculptor, and when he was asked what he could do, he took a charcoal and drew on the wall a hand — a human hand — such grace, such purity of line, and of thought, and such absolute master! The old man rushed at him, clasped him to his heart, threw open his studio, and said: "All this is for you!" "We will share it; we will work together"; and they did. And they were the happiest years of Buonarroti's life. Then it was that he made the angel for the Shrine of St. Dominio. They said that an angel hand must have sculpted it. And in the fondness of their appreciation they called him Michael *Angelo*. Then to Rome, where he made the purest and most sympathetic of all his works — the group of the sacred Virgin Mother and the dead Christ, called "Pity." It is told that when the piece was finished he mingled with the admiring crowd that surrounded it, and overheard two learned doctors discussing the authorship of it. That night he stole into the chapel, and by the light of a lantern he carved his name into the cincture of her garment. And then the bitterness and pride seized him again,

and he never signed another work, saying: "That if they were not good enough to be distinguished without his signature, they were not worthy of it."

Pope Julius II. commissioned Michael Angelo to make him a tomb that would be one of the monuments of the world, which, on account of its artistic worth, would be preserved to the end of time. At last Michael Angelo had the opportunity of his life, and his ambition was to be satisfied. His design was made with a full heart, loved in every detail, dwelt upon with prayer and labor almost measureless. And it was accepted by the Pope. Michael Angelo spent a

some one had whispered to Julius that it was unlucky to have one's sepulchre built while one was alive — and Michael Angelo knew all about his enemies at Court. But the dream of his life was smashed — like a glass.

After a lot of pulling and hauling, commands, cajolery, promises and threats, Michael Angelo returned to Rome. He was commissioned to decorate the ceiling of the Sistine chapel. Had it been sculpture his heart would have overflowed with joy. But painting! Painting was not what his soul yearned for. His love was the solid. So with his cup of sorrow and disappoint-



VILLAGE FALLS, CHAGRIN RIVER, OHIO.

year at the quarries of Carrara, mining the stone, that it should be fit for its purpose. A tomb for the Pope, and a monument to Michael Angelo and his art — his all.

One day the Pope got into an impecunious mood and sent word that he wanted an accounting — the time, the money — where was it gone? Where was the tomb? Where were the statues? Michael Angelo sent word, that for the time and money they were in the quarries of Carrara, and the statues were there too, and that there were many others there — they had better send some one to take them out. As for him, his address was Florence. Truth is that

ment and bitterness filled to overflowing, he went to work. *Hopeless*; shut out from the world on a scaffold, where he worked, ate and slept, drawing his food up with a string, to be alone; for four years he labored. When the ceiling was finally uncovered, it was like a thunderclap, terrible in its intensity. The soul of the man was in the work. Taine says that it is as though Michael Angelo were listening — beforehand — to the thunders of the last day.

This is my picture of Michael Angelo. Tormented by an avaricious family, eternally and everlastingly disappointed, and thwarted by the caprice, superstition and ignorance of his patrons;

chaste in a voluptuous court, harrowed in his soul by the degeneracy that surrounded him, lonely and ill at ease in the society of petty natures; outwardly reserved and of deep emotions, sensitive to excess, an impetuous, resistless spirit, heroic and terrible.

The father of Rubens was a lawyer, and in the game of politics he played long and well, with a well-directed and masterly hand. But he made one bad move and died in exile. While he was under the ban Peter Paul was born. It is said that he came into the world a welcome child, carrying the beauty of the morning in his face, form and spirit. He was bright, cheerful and obliging. Handsome as his father. Big, dark-brown eyes and clustering curls. After the father's death they went back to Antwerp, and the mother being a good Catholic and diplomat, their confiscated property was restored to them.

A certain Countess wanted the boy for a page on account of his manner and beauty, and the mother, foreseeing the advantages of a court training and its influence, submitted to being parted from her charming twelve-year-old boy. The Countess lavished on him affection as only a childless woman can. He was reared as though he were a prince in his own right. Tutors and polite society were his daily company. He was at once the favorite of all, and the Countess loved him so much that she taught him to call her "mother." This was more than his sure-enough mother could stand, so she took him back home. But not until he had acquired the air that goes with noble breeding, and in those folk who have no occasion to be other than gentle.

The mother had heard of Raphael and Michael Angelo and Leonardo. How they had through their works become peers of princes and popes, and to have him occupy such a position was her ambition for her boy. That he had latent talent, events have proved. But the boy entered into the project to please his mother. Not because, like Rembrandt, he was good for nothing else; nor like Michael Angelo, because he just would; nor like Raphael, because

it was born in him; but because it was his way — to please — his way to try to make other folks happy, and his mother of all others.

One of his teachers was a landscape painter who could not paint faces, but he had a friend who could. When he wanted a figure introduced into a landscape he would send for his friend, the portrait painter, and when Mr. Portrait wanted some scenery in a portrait picture he would send for Mr. Landscape painter, and so they lived many years, and happily.

By the time Peter Paul was about fifteen or so he had learned the game of both of these men, and fired with ambition to make good the losses his mother had sustained by his father's failure in life, he sought further progress, which was in the direction of portrait painting, because he knew that it was only by this road that he could get the influence of the Church behind him. So he worked long and hard, until, at the age of twenty, when, counseled by the wise mother and his own unerring diplomacy, he entered the studio of a man who took very few pupils, and only those who were capable of seconding his hand and carrying out his designs, a man who was no better painter than his former masters, perhaps not as good, but he was the court painter. Rubens was, like his father, in love with the game of politics, but, unlike his father, he never lost a trick.

This man, Van Veen, the Court painter, was to supplement the acquaintances of the gentle friends of his youth — was calculated to open for him the doors of royalty itself. The plan worked to perfection, for at the age of twenty-two he was nominated as a free master of the Guild of St. Luke, by Van Veen, and he was introduced by him to his master and mistress, the Archduke Albert and Isabella, his wife, who was the daughter of Philip II., King of Spain.

Now that his place in the social world was secure, Rubens wanted to study at the fountain of art — Italy. To the ordinary painter-man there would have been more or less difficulty

about getting passports; examinations would have been necessary to prove that he was capable of representing the country with honor. But this young gentleman had paved his way, and a personal introduction from Albert and Isabella to the Duke of Mantua, the artistic successor of Lorenzo the Magnificent, and a world-power in his day,

very wary when he went up against Mr. Chieppo. But history proves that Mr. Chieppo was pie for Rubens. Mr. Chieppo was main guy of the establishment of Mantua. He figured the policy for the State, levied the taxes and collected them, and then devised ways and means for spending them, so that they would go farther and show most. He bought the Duke's underwear and bossed the servants, he wrote the Duke's letters and received the Duke's visitors — at any rate that part of them the Duke did not want to see; and he had a head — long like a horse, and he knew a good thing when he saw it.

And Rubens carefully studied the part of the "good thing" (and Mr. Chieppo). The Duke was captivated by the magnificence of his manner, and his simple, subtle, elaborate and frank egotism on the subject of his own work.

The Duke was proud of his new ward, and exhibited him to his friends, with the explanation that he made him himself. Which Rubens stood for; it was in the "good thing" part.

The art collection of the Duke of Mantua was composed of the best that up to that time the world had afforded — works of del Sarto, Tintoretto, Leonardo da Vinci, Correggio, Veronese and Raphael. When an honored guest praised some particular piece, it was the custom for the Duke to note the fact on an ivory tablet, and say with good-natured nonchalance, "I will have my best artist make a copy of it for you. Don't mention it."

Rubens went to work copying the pictures. Just what he had gone to Italy to do. And whether Rubens or the Duke was the luckier; well, they both had private opinions. But it was part of Rubens' prearranged schedule. The ladies of the Court used to come around afternoons to see him paint, and he used to fill their ears with carefully warmed words. Mr. Chieppo "got on" and gave Rubens this advice: "You must admire all these ladies in equal proportion; should you show favoritism the rest will turn on you, and to marry one would be fatal to your art." Rubens made a note of it, and



Negative by O. J. Smith,

Leipsic, Ohio.

was part of the baggage of Rubens when he left Flanders. And he carried in his head a supplement to the letter in the form of a tip from Van Veen that in order to last with the Duke it was necessary to win the Duke's Minister of State, one Chieppo.

Like all good politicians, Rubens was

sent it to his mother, who O. K'd it and sent it back by special delivery. After a period of unflinching industry Rubens was sent to Rome to the Cardinal, Montalto, nephew to Pope Quixtus, and barring the Pope, the strongest man in Rome, with a letter from the Duke which said: "You will be graciously so good as to allow our Fleming to make copies for us of such paintings as he may think worthy." The world of art was now open, and he wrote his mother: "If I don't succeed it will be my own fault."

Mr. Chieppo sent orders to the Envoy of Rome to see that Rubens was well treated. Also to report as to how he spent his time, and how he got on with the Cardinal. Mr. Chieppo had no cause for complaint, however, for Rubens was working in the line and at the place that his plan had mapped out and was being paid for, and to keep in the good graces of the Cardinal, that was his part.

As a matter of fact, the Duke had come by this time to regard himself as having a proprietary interest in Rubens, and until Rubens had gotten all he was looking for he never hinted to the contrary. But the time did come when he wanted to go back to Flanders, and right at this point he had to bend. The Duke had a scheme and Rubens resolved to get the best out of what could not be helped, so, with a great show of interest, he jumped in the band-wagon by "joyously" consenting. And Royal flushes, and four-of-a-kind of aces, nothing less, were the kinds of hands that Rubens held in the Court of the Duke of Mantua. The Duke had some little axes to grind, some favors to ask in the near future, and some information to be ferreted out as to the attitude of the Court of Spain. Flanders was a Spanish possession. Rubens was from Flanders, and the daughter of the King of Spain was one of Rubens' patrons. In fact, he was sailing under her colors.

When you appear to take for granted that a man is artistic — when he is not dead sure of it himself — you are apt to win him in a walk. Spain was more horsey than artistic just at that time

(though it was growing, Valesquez and Murillo were soon to appear). But the play as figured (it proved to be the right one) was that the Duke would send some pictures — copies of Titians, Tintoretos and Leonardos — to the King. And to invest the occasion with the proper dignity he would send his best painter with them (to see that they were properly unpacked and rightly hung). And Rubens was the precise combination for ambassador, so decided Mr. Chieppo, the gentleman with a long head, like a horse.

Of course Mr. Chieppo and Rubens had seances as to what should be done, and just how; who the strong plays were to be made to. The Duke of Lerma was the man behind the throne, and he *had* to be won. The story goes that the Duke of Lerma had a bad eye. Rubens painted a portrait of him, emphasizing his good points, and he forgot to paint in the squint.

He made a portrait of the King, in which he looked like all the handsome kings in the deck, though they say he was not much of a king, anyway. But Rubens was in the "hit" business. He was an artist, a horseman, a musician, a politician and a gourmet. He had a fine appreciation of things eatable and drinkable. Sure he had gout when he was thirty. But Rubens was in the "hit" business. He was initiated into the inner life of the Spanish Court as Iberta, the Mantuan envoy, had never been, and the Spaniards liked him so well that they asked permission to keep him a year. (It is said that he spent the latter part of each evening writing to Mr. Chieppo on those topics of which Mr. C. wanted to be informed.) At any rate the result of the mission was such that the Duke of Mantua said: "Jewel of my heart, name your desire and you shall have it."

He had been eight years in the service of the Duke, and he wanted home, Antwerp, mother and the good old Flemish tongue. He had the Duke where his hair was short and he went home. When he got home he was made Court painter. He opened a school and pupils flocked from all Europe. He had

commissions for more pictures than he could paint. And still he painted well and earnestly. Hamerton says: "We have more canvases from his hand than from the hand of any other master." And these pictures are a quarry, to which, consciously or unconsciously, every artist of today is indebted. Rich, courtly, handsome, the balance of his life-journey was one great, triumphant success.

Without sympathy on your part you can not get the other person to reveal to you what they have that is good and noble. If you are coarse and brutal, in

perately to repair the damage, if possible, while the likeness was still bright in his memory. When Rubens came back he lined the rascals up and put them through a course of sprouts to discern the culprit. The little blonde confessed to the attempt at repairing, and Rubens dismissed the matter with a laugh, saying that he did not know but that it was better done than he could have done it himself.

Van Dyck had been so thoroughly in sympathy with the master that he painted as though it were with Rubens' own hand. When he went to Venice



Negative by G. H. Hardy,

LIFTING OF THE FOG.

East Lebanon, N. Y.

order to protect themselves other people must show you what is coarser in their character. Sympathy, like nature, finds its level. As you love, so will you be loved. As you hate, so will you be hated. What you give, in kind it will be returned to you.

The story goes that one day while Rubens was out of the studio a scuffle occurred, in which a freshly painted picture was knocked off the easel, and one of the students sat down on it, obliterating the face. Of course there was the devil to pay. A little blonde-haired, blue-eyed chap set to work des-

perately to repair the damage, if possible, while the likeness was still bright in his memory. When Rubens came back he lined the rascals up and put them through a course of sprouts to discern the culprit. The little blonde confessed to the attempt at repairing, and Rubens dismissed the matter with a laugh, saying that he did not know but that it was better done than he could have done it himself.

Van Dyck had been so thoroughly in sympathy with the master that he painted as though it were with Rubens' own hand. When he went to Venice

he painted after the style of Titian so thoroughly that the Titian touch can be recognized through his later work to this very day. Van Dyck was the son of wealthy and retired parents, and by his life with Rubens, the courtier, he was so imbued with the ideas of taste and elegance that when he went to Rome he could not associate with the Flemish students, who affected coarseness and vulgarity (as young men sometimes do), and they called him the "cavalier painter." While this quality may have weakened his historical and religious pictures, it was the one quality which,

when he adopted portrait-painting as his life-work, gave to his pictures the air of gentility, which separates them, not only from his contemporaries, but places him ahead of any portraitist that ever lived. His likes, loves and sympathies were all in the line of nobility and graciousness and elegance. He painted just what he saw. He saw just what was reflected from himself. By his presentation to others of genuine good nature, affability and elegant bearing, he drew the same from others. And he painted what he saw. Normal man when in the company of others is constantly as before a mirror. He reflects back the mood and mental mien of his associates. When he painted the English King Charles he painted him as a gentleman.

It is said that the courtly manner and refinement of Van Dyck made him a favorite with the King. He was as kingly as the King. He was the only one who painted Charles with the bearing of a prince. Charles had many things petty and mean in his make-up, but Van Dyck, the princely, drew only princely conduct and received only princely courtesies from his royal master, who dare not show himself less gentle than his painter friend. The King showed only those qualities which corresponded to Van Dyck's, and Van Dyck painted what he saw.

In the Metropolitan Museum in New York is a portrait of James Stuart, Duke of Lenox, the sixth James of Scotland and the first of England, one of the most miserable cowards that God ever put on the footstool. Selfish, weak — a man who allowed Elizabeth of England to put his own mother to death, even when he had France at his back; so small that he had not even mother love. And yet Van Dyck painted him as a prince. Van Dyck's nature forced from James Stuart those qualities that were good and had come from his father's line, and the gentler qualities that France had taught his mother. He could not be small in the presence of a man like that and I warrant you that Van Dyck made him (if for the only time in his life) *feel* the prince. And

Van Dyck painted what he saw. How can you portray a mighty man mightily if you have nothing mighty to call to the surface the mightiness of the man? How can you portray the graciousness of a gracious woman if you have no graciousness in you which she can reflect back? How can you portray sweetness in a child if you do not love? You must so live that the nobility and graciousness of every man greets you as your due if you would be a portraitist.

A MISLEADING STATEMENT.

During the lifetime of the Rev. Hannibal Goodwin, various absurd stories were circulated concerning his alleged connection with film photography. We have never taken any notice of these stories owing to their obvious sensationalism, although they always dragged in the name of this company in a way that implied or directly charged that we were using, without authority, a process belonging to Goodwin. However, the affair having been brought up anew by the recent publication of a statement (fathered by the persons who, it appears, have recently acquired an interest in the Goodwin patent for the evident purpose of making a strike by trying to unload it on us), we think it worth while to use a little space in this circular in giving our customers some of the rock-bottom facts in regard to this patent of straw. The following is the misleading statement, referring to patent No. 610,861, dated September 13, 1898, granted to the Rev. Hannibal Goodwin, of Newark:

" . . . consequently it is a foundation patent in the film business, and owing to the scope of its claims it is believed to occupy a controlling position in regard to other patents. Owing to various interference proceedings in the Patent Office, the issuance of the patent was delayed, but they give it the advantage of having been practically litigated in the office before it was issued.

"The Eastman Company filed two applications — one through H. M. Reichenbach, the other by Mr. Eastman — and endeavored to obtain the

patent. The result of the interference proceedings was that the Eastman Company was obliged to acquiesce in the decision awarding priority to Mr. Goodwin, a subsidiary patent only being granted to his opponents. Then followed a long series of proceedings against the issuance of the Goodwin patent; they lasted a long time and included an exhaustive examination of the entire prior art for references against it. The result, however, was the allowance of the patent to Mr. Goodwin."

The facts of the matter are that Goodwin, after he had learned of our success in perfecting a process for the manufac-

"It is found that Goodwin did not claim the improvement in controversy nor make a statement of invention equivalent thereto until after the same was claimed by Reichenbach, wherefore the burden of proof is on Goodwin."

Goodwin did not attempt to support this burden, obviously because he could not, and decision of priority was made in favor of our assignor. Afterward Goodwin disclaimed our process under his oath.

The other application referred to, the one by Eastman, was for a machine for making the film, and it was granted without controversy. There is nothing



Copyright, 1901, by W. S. Gerts.

NIAGARA.

ture of rollable transparent films, and after we had successfully marketed such films, raked up an old application which he had sleeping in the Patent Office, copied into it a lot of matter he had obtained from us, and then tried to raise an issue in an interference proceeding with the Reichenbach application. After a hot fight we made him show up what he had in his original application, and obtained a decision from the Commissioner of Patents which put on him the burden of proving that he had first made the invention. This decision was as follows:

on record so far as we know to indicate that Goodwin ever got as far as the mechanical side of the problem. The Eastman machine was the first successful one for making transparent support in long lengths. It is still in use and has probably made ninety per cent of all the rollable transparent film used by the public up to the present time.

It will thus be seen that the Goodwin patent was litigated in the Patent Office, but clearly in our favor.

We do not think Goodwin ever had any workable process for making a transparent film. If he had, we never

heard of his using it or any one else making any use of it. Certainly we have never used any process except the one he disclaimed under oath.

It is self-evident, therefore, that the statement that Goodwin won against us in the Patent Office and that he obtained a controlling patent for making a transparent film is absolutely false. The owners of the Goodwin patent have not even the proverbial "half a truth" on which to base their claims. We consider their absurd statements beneath notice, and should pay no attention to them, except that continued silence on our part, and continued reiteration of garbled facts on theirs, might in time lead the trade to a misunderstanding of the facts as they exist.—*Kodak Trade Circular*.

THE APPLICATION OF SCIENCE TO INDUSTRY.

In the course of a recently delivered lecture on the "Aims of the National Physical Laboratory," Prof. R. T. Glazebrook selected the story of the Jena glass works by way of illustrating his remarks on the solution of industrial problems by science. An exhibition of scientific apparatus took place in London in 1876. Among the visitors to this was Professor Abbé, of Jena, and in a report he wrote on the optical apparatus he called attention to the need for progress in the art of glassmaking if the microscope were to advance, and to the necessity for obtaining glasses having a different relation between dispersion and refractive index than that found in the material at the disposal of opticians. Stokes and Harcourt had already made attempts in this direction, but with no marked success. In 1881, Abbé and Schott, at Jena, started their work. Their undertaking, they write five years later in the first catalogue of their factory, arose out of a scientific investigation into the connection between the optical properties of solid amorphous fluxes and their chemical constitution. When they began their work some six elements only entered into the composition of glass. By 1888 it had been found possible to combine with these, in

quantities up to about 10 per cent, twenty-eight different elements, and the effect of each of these on the refractive index and dispersion had been measured. Thus, for example, the investigators found that by the addition of boron the ratio of the length of the blue end of the spectrum to that of the red was increased; the addition of fluorine potassium or sodium produced the opposite result. Now, in an ordinary achromatic lens of crown and flint, if the total dispersion for the two be the same, then for the flint glass the dispersion of the blue end is greater, that of the red less than for the crown; thus the image is not white, a secondary spectrum is the result. Abbé showed, as Stokes and Harcourt had shown earlier, that by combining a large proportion of boron with the flint its dispersion was made more nearly the same as that of the crown, while by replacing the silicates in the crown glass by phosphates, a still better result was obtained, and by the use of three glasses three lines of the spectrum could be combined; the spectrum outstanding was a tertiary one, and much less marked than that due to the original crown and flint glass. The modern microscope became possible. The conditions to be satisfied in a photographic lens differ from those required for a microscope. Von Seidel had shown that with the ordinary flint and crown glasses the conditions for achromatism and for flatness of field can not be simultaneously satisfied. To do this we need a glass of high refractive index and low dispersive power, or vice versa; in ordinary glasses these two properties rise and fall together. By introducing barium into the crown glass a change is produced in this respect. For barium crown the refractive index is greater and the dispersive power less than for soft crown. With two such glasses, then, the field can be achromatic and flat. The wonderful results obtained by Dallmeyer and Ross in this country, by Zeiss and Steinheil in Germany, are due to the use of these new glasses. They have also been applied with marked success to the manufacture of the object glasses of large telescopes.

COLORING LANTERN SLIDES IN THE JAPANESE MANNER.

Even those who regard with horror the crudity of photographic lantern slides colored in the common way have been compelled against their will to admire the beautiful slides colored by the Japanese, and many have desired in vain to find out the method by which these results are obtained. Lately, however, Dr. G. Hauberrisser has discovered a method which, though probably not quite the same as the Japanese methods, is comparatively simple, and gives, he claims, results equal to the Japanese. The photographic slides must be less opaque than those used for ordinary projection, and in particular must have transparent shadows. Collodion or carbon slides have advantages, and the gelatino-bromide slides may, if necessary, be reduced with ammonium persulphate. The essential point in the method is the use of a twenty-five per cent solution of gum arabic as a vehicle for the colors. It does not spread beyond the desired places, dries with perfect transparence, and without a dark edge, and can be applied in the form of minute drops, so that no brushing is necessary, and consequently the production of brush marks and air bubbles is avoided. The dyes used must be soluble in the gum solution, and transparent. The following, most of which are made by the Badische Anilin and Soda Fabrik, answer well, but probably others can be used: *Yellow*, brilliant yellow S, and yellow wood extract; *green*, dark olive, light green SF (yellowish); *red*, platin scarlet; *orange*, orange H; *brown*, leather brown G; *blue*, methylene blue BG, indigotin IN, neptune green S; *violet*, methyl violet, B, extra; *neutral tint*, nigrosin WL. The last is indispensable for cast shadows, storm clouds, etc. The gum solution is prepared by putting 125 grams of pure white gum arabic in a linen bag and hanging it in 400 cc. of water. After about a day the gum has completely dissolved, and any left in the bag can be squeezed through it. The liquid is then mixed with 10 cc. of glycerin and a small quantity of an antiseptic, and

made up to 500 cc. The solution, if not quite clear, is allowed to stand for some time, and the upper clear layer drawn off with a pipette. The solutions of the various colors in the gum solution are prepared and kept for use; if too intense, they can be diluted with some of the gum solution, but on no account



Neg. by Anton Schatzel, Binghamton, N. Y.

SPRING.

with plain water. Mixed colors are prepared on a glass plate just before use. The slide to be colored must be supported perfectly level, the light being thrown up through it from a mirror or a sheet of white paper placed below at an angle of forty-five degrees, while, by means of side and front screens similar to those of a retouching desk, the

eyes are protected from all light, except that which comes through the slide. The color is applied in minute drops, with as little brushing as possible. When sharp edges are desired, one color must be allowed to dry completely before the color is put on the adjacent parts, but if a soft edge is desired, the second color is put on before the edges of the first are quite dry. To apply one color over another requires great care, since no pressure with the brush is admissible. If the second color can not be applied drop by drop it is best to allow the first color to dry completely, flood it with a thin coat of gelatin or albumen, again allow to dry, and then apply the second color. The use of the protective film allows of the better blending of the superposed colors. A magnifying glass is, of course, necessary when working on the fine details. After being colored, the plate must be allowed to dry in a perfectly level position, and should finally be varnished.—*Photography*.

THE IDEAL IN PORTRAITURE.

I have studied with much profit and pleasure THE PHOTO-BEACON, beginning with the January number, 1901, and although I am a reader of three other journals, THE PHOTO-BEACON shall continue to be a member of my literary family.

The article illustrating your photographic career should be a consolation to many (it has been to me), proving that it is possible to get out of the ruts that seem so necessary for all of us to tumble into. My own photographic career, as well as my general career, does not consist of many years, and I trust that what I have to say will not become tiresome to any great extent.

The article which has my attention appears in the August number of THE PHOTO-BEACON, entitled "The Man Behind the Gun," illustrated with pictures—"How Twelve Others Saw Me." This article has cleared many mysteries in my mind and, as is so natural, has replaced others. It has shown to me how (when one has acquired the necessary artistic and hypnotic powers),

the gun may be made to portray the soul as well as the skeleton of an individual. This you have demonstrated as clearly as I think is possible, by making known your experience with the two men whom you speak of as having a definite point in view.

There is a rule (if I may term it as such) that "The greatest art is to conceal the art," and I am afraid that this rule is too closely observed in too much of our literature. When one is told what to do, it is sometimes beneficial to give him at least a hint as to how he can do it.

Now, as I understand, the intention of this article is to convince those who are of the opinion that nothing artistic can be made of the subjects they have to deal with that they are wrong. This strikes me rather forcibly, as, two years ago, I was guilty of having expressed the same remark. It seems to me that this trouble was mostly due to stepping beyond the limits. I was unconsciously attempting to put the soul of one individual into another, resulting, of course, in failures.

I became discouraged; everything was wrong; business dull. That fall I shoved my camera into a corner and went to the convention. I can still hear the echoes of Professor Griffith's lecture ringing in my ears. "Suit the word to the action, and the action to the word." A sigh of relief heaved from my bosom, and I felt that one great battle was o'er.

Now, I have concluded that it is impossible to successfully make a subject to represent what it is not. In fact, my own peculiar fancy tells me that this would be illegitimate, if it were possible. I do not mean by this that it is not possible to idealize, or to portray our ideals with the camera, for this would be to deny that long-settled fact that photography is a fine art. I am speaking of portraiture, pure and true.

We are certain that when Millet painted the "Angelus" he did not put the souls of Quakers into those potato diggers. If so, wherein would lie the beauty of that great picture? Surely not in linear composition. As formerly stated, I have changed my mind, but I

can not go into the other extreme, acknowledging that the best subjects for pictures are to be found in small towns, as I have heard said. I think this depends greatly upon what kind of pictures we wish to make.

Now we are told that when we are portraying men, we must display dignity, strength, force, etc. I have seen men who possessed very little of either. Dignity, strength, etc., may compose the ideal man, but would it not be best to display them as they are?

happened at the late convention in Detroit. A friend and I were studying some of the pictures and chatting, when all at once his eyes caught sight of a picture (a lady composed the subject) which startled him a bit, and in another moment he turned to me and said: "It seems to me that she is about to order me out of here, with a few oaths if I should resist." This may have said just what its author meant, but it was not pleasant, and I have read that art should excite pleasure; and the greater the



Negative by Charles B. Armstrong,

Missoula, Mont.

WAITING FOR DINNER.

In ladies should be grace, symmetry and beauty. I can not put grace into one who has not a little of grace about her. A stone house can not be built of timber, although the best that could possibly result from such material might be done. It could not be compared with sandstone, or marble.

These ideals I consider O. K., but we should not set them up as an axiom, although we must acknowledge it is the best we want in art.

This calls to my mind an incident that

pleasure the greater is the picture. To quote Ruskin: "The greatest picture is one that conveys to the mind of the spectator the greatest number of the greatest ideas," and this is the understanding I get from H. P. Robinson, and Emerson, through different molds.

Now if grace and beauty in forms constitute the ideal lady, we can not have too much of it, and this would deny that anything artistic could be made of those who do not possess these qualities. I do not put myself up as a

naturalist, so do not understand that if a subject is somewhat awkward, I would display it, if it were possible to hide it, but when there is but little grace there is generally something just as good, if we have eyes to see it. I can not see that grace should be given the first place in each and every individual of the fair sex, as I have been told. No doubt all enjoy seeing it, but all do not possess it, and in fact do not care for it. They perhaps have other things just as dear to their minds, which are occupying their time.

We may love music, but because we do is not to say that we should be represented as musicians. This might do in case of genre pictures, especially with trained models, but I can not see that it would be possible in portraiture.

Occasionally I meet with a customer who will say: "I have never had a good picture of myself. I am too homely." I have heard this from the lips of beauties, and in this case it never impressed me much. I always consoled them with the flattery they were asking for, and the pictures were generally all right; but when this comes earnestly from one who does not possess that outward beauty, but generally a good soul, I wish I were what I am working to be. I would smother those bad features. I would put them behind that soul. I would force the soul to predominate in that portrait, and I feel sure the finished result would represent the original, and I would have the pleasure of making her first portrait.

This I know is possible and has been done by such capable men as Mr. Hollinger, Strauss, and many others, who are continually giving us splendid examples.

Another point I wish to speak of and nearly forgot is this, that different localities require different treatment. I believe that in a place such as I am in at present, one can go to a certain limit with art and then he must stop, or be condemned by his patrons. It is true that we see things as we have been taught, and if we are properly taught, and with understanding, we will see properly. Then, on the other hand, we

must consider our patrons who know little or nothing about art, and are left to their own natural inborn taste. They can not possibly see as we do, and are generally very free to find fault, and when pinned down, will admit that they know absolutely nothing about it, but this does not give them a different view of what is before them, and is therefore of but little satisfaction to either.

In some places the public in general dwell more upon these subjects, have a better understanding of it, and are continually looking for the higher and better qualities, and know when they see it. In a place of this kind one has a better chance, and especially when compelled to depend upon his products for his bread. Duty sometimes is a hindrance to mental advancement.

O. J. SMITH.

WHEN IS A PLATE FIXED?

(A Report of the Technical Committee, by Prescott Adamson.)

Every once and awhile we see appearing in our journals, among other stock articles, paragraphs on the use of two fixing baths, also stating that when a plate is immersed in hypo the silver is first changed to hyposulphite of silver and sodium, which double salt, while it is transparent and gives to the plate a transparent instead of a white appearance, still is insoluble in water; and further, that if the plate is taken out of the fixing bath the moment it clears, it will never be free from silver, and that no amount of washing will make it safe. Also that this double salt is soluble in hypo; so it is only necessary to leave it in the fixing bath long enough to effect the solution of this salt; and then comes the proposed use of this second bath, which is used to effect this latter reaction.

The above is perfectly familiar to all readers of our photographic literature. It is copied from one magazine to another; so it is hard to escape it. In regard to the use of two baths, we would say that if the first bath is fit to use at all, then it is good for both purposes. If not strong enough to dissolve the double salt, then it is not

good to use for any purpose. The use of two baths reminds us much of the man who, having two dogs, cut two holes in his barn door; a large one for the big dog, and a small one for the little dog. The usual advice given for fixing is to leave the plate in the hyposulphite of soda five or ten minutes after it is cleared, but no definite statement of time seems to be known. The following experiments were carried out for that purpose.

In order to have uniform results, but one kind of plate was used, which happened to be Seed's 26 X, probably an average plate. The hypo solution was made with one part of the crystals in four parts water, and a transparent glass upright fixing bath was used, to obtain exact time of reaction.

With four plates which had not been exposed or developed, and were put into the hypo with dry films, it took five and one-half to six and one-half minutes—an average of six minutes, at which time the plates were perfectly transparent, and each one was transferred to running water as soon as cleared. With plates that had been in the developer, or had been soaked in pure water, it took just one minute longer to clear the plate. This gives an average of seven minutes for fixing a plate sufficiently to make it transparent. Thermometer was sixty-five degrees—and the temperature makes considerable difference; also the make of the plate has much to do with the time of fixing.

The following experiments were undertaken solely to find out how long it took the hyposulphite of silver and sodium to dissolve, and we must say that the results were not what would have been expected from the conventional statements.

Two plates of the four above mentioned were washed in an upright bath for ten minutes, in a strong current of water, and then tested. A silver reaction was at once given, just as we would have supposed, but when the other two plates had been washed for two hours, the result was *not* as we should have expected. These latter

plates, which were taken from the hypo at the moment of clearing and had simply been washed two hours, were tested for silver; one plate by the sulphide test and the other plate by removing the 'wet film, incinerating it, reducing in a porcelain crucible and testing the residue for silver, one process being a check on the other. To our surprise, we found these two plates were perfectly free from silver. Then this latter experiment was repeated, giving the same result, and showing that when a plate is perfectly cleared and washed sufficiently long no silver remains in the film.

Now there is no doubt that silver and hypo will form under the right conditions a hyposulphite of silver and sodium—in fact, it forms two salts of this name, one of which is insoluble and the other is soluble. The first can be obtained by adding silver nitrate to hypo solution; the second must be obtained by removing the insoluble salt and precipitating with alcohol.

This first reaction we can see here; the latter is of no particular interest in this connection. To illustrate the formation and reaction of these two double salts we will form and dissolve them here. In this glass we have a strong solution of hypo, sufficiently strong to readily dissolve the hyposulphite of silver and sodium as soon as formed. In another beaker we have a solution of silver nitrate, which we add to the hyposulphite of sodium. You observe a white precipitate forms, which at once dissolves. This precipitate is a soluble hyposulphite of silver and sodium, and shows clearly that it dissolves instantly and completely in the reagent that precipitated it.

We now dilute the hypo to a weak solution and add the silver again. This time you observe that the precipitate does not dissolve, but quickly turns black, owing to the formation of a sulphide.

Why did we not find silver in the films that were withdrawn from the bath at the moment of clearing? Supposing a double salt has formed, and even supposing it has not dissolved

while in the fixing bath, you must still remember that the film is saturated with hypo, and that this is not removed completely for a long time while being washed, which would easily account for the silver being entirely dissolved before the plate is removed from the washing water.

But the truth of this matter is, that if a strong solution of hypo is used there is no double salt formed that is not readily soluble, but where a very weak fixing bath is used there may be danger of the hypo not being in sufficient excess to properly dissolve the silver, and in that case an insoluble salt would form.

Finally, while we found that it was not absolutely necessary to leave the plate in hypo for a prolonged period, we did find that thorough washing was an absolute necessity, and can not be omitted, if both silver and hypo are to be fully removed from the film.—*Journal of the Photographic Society of Philadelphia.*

NEGATIVE PAPER.

The well-known firm of "Rotograph," ever progressive, have now placed on the market their "Negative Paper," as a substitute for dry plates and celluloid films. This "Negative Paper" shows almost no fiber structure, and is so thin, yet so tough withal, that prints can be made from it without any waxing or oiling of the paper. In speed it equals a good dry plate, and has the further advantage of lightness, cheapness (less than one-half the price of plates) and perfect non-halation qualities. Rotograph negative paper can be obtained in the usual plate sizes or by the yard. For enlarged negatives from which to make carbons or rough platinum prints it is unsurpassed.

Rotograph also announces a new brand of paper, the "Imperial Rotograph," a heavy cream-tinted paper, yielding rich and broad effects. Also their Iron Citrate Developer, as used exclusively by them, is now ready for the market.

CARBON PRINTING TO THE TRADE.

E. & H. T. Anthony, 122 Fifth avenue, New York, announce that they are now doing carbon printing for the trade.

THROUGH a clerical error the portrait of a Spanish lady which was recently published in the advertisement of the Bausch & Lomb Optical Company in this journal, was credited to Torres & Company, Mexico City, Mexico. This portrait was in reality made by Arriaga & Company, of Mexico City. The picture was, however, made with Plagimat f-6.8, both these firms being supplied with these lenses.

EDITORIAL TABLE.

FROM A. M. STEPHENSON, 19 Queen street, Worcester, Massachusetts, we have received a specimen of cloth on which is printed a landscape picture by the familiar blue process. This should prove very acceptable to thousands of amateurs who wish to utilize their negatives in making interesting souvenirs.

THE A. B. PAINE PHOTO SUPPLY COMPANY, Fort Scott, Kansas, favor us with a copy of their new catalogue, which is No. 9. This will be found very useful to prospective buyers.

"HAWK-EYES" is the title of the Christmas catalogue issued by the Blair Camera Company, containing a full description of all the instruments they manufacture.

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